

SEQLIST-20480.TXT

Lys Leu Val Phe Leu Trp Leu Leu Trp Pro Val Thr Leu Ala Cys Phe  
50 55 60  
Val Leu Ala Val Val Tyr Arg Ile Asn Trp Val Thr Gly Gly Ile Ala  
65 70 75 80  
Ile Ala Met Ala Cys Ile Val Gly Leu Met Trp Leu Ser Tyr Phe Val  
85 90 95  
Ala Ser Phe Arg Leu Phe Ala Arg Thr Arg Ser Met Trp Ser Phe Asn  
100 105 110  
Pro Glu Thr Asn Ile Leu Leu Asn Val Pro Leu Arg Gly Thr Ile Val  
115 120 125  
Thr Arg Pro Leu Met Glu Ser Glu Leu Val Ile Gly Ala Val Ile Ile  
130 135 140  
Arg Gly His Leu Arg Met Ala Gly His Ser Leu Gly Arg Cys Asp Ile  
145 150 155 160  
Lys Asp Leu Pro Lys Glu Ile Thr Val Ala Thr Ser Arg Thr Leu Ser  
165 170 175  
Tyr Tyr Lys Leu Gly Ala Ser Gln Arg Val Gly Thr Asp Ser Gly Phe  
180 185 190  
Ala Ala Tyr Asn Arg Tyr Arg Ile Gly Asn Tyr Lys Leu Asn Thr Asp  
195 200 205  
His Ala Gly Ser Asn Asp Asn Ile Ala Leu Leu Val Gln  
210 215 220

<210> 9964

<211> 422

<212> PRT

<213> SARS coronavirus

<400> 9964

Met Ser Asp Asn Gly Pro Gln Ser Asn Gln Arg Ser Ala Pro Arg Ile  
1 5 10 15  
Thr Phe Gly Gly Pro Thr Asp Ser Thr Asp Asn Asn Gln Asn Gly Gly  
20 25 30  
Arg Asn Gly Ala Arg Pro Lys Gln Arg Arg Pro Gln Gly Leu Pro Asn  
35 40 45  
Asn Ile Ala Ser Trp Phe Thr Ala Leu Thr Gln His Gly Lys Glu Glu  
50 55 60  
Leu Arg Phe Pro Arg Gly Gln Gly Val Pro Ile Asn Thr Asn Ser Gly  
65 70 75 80  
Pro Asp Asp Gln Ile Gly Tyr Tyr Arg Arg Ala Thr Arg Arg Val Arg  
85 90 95  
Gly Gly Asp Gly Lys Met Lys Glu Leu Ser Pro Arg Trp Tyr Phe Tyr  
100 105 110  
Tyr Leu Gly Thr Gly Pro Glu Ala Ser Leu Pro Tyr Gly Ala Asn Lys  
115 120 125

SEQLIST-20480.TXT

Glu Gly Ile Val Trp Val Ala Thr Glu Gly Ala Leu Asn Thr Pro Lys  
 130 135 140  
 Asp His Ile Gly Thr Arg Asn Pro Asn Asn Asn Ala Ala Thr Val Leu  
 145 150 155 160  
 Gln Leu Pro Gln Gly Thr Thr Leu Pro Lys Gly Phe Tyr Ala Glu Gly  
 165 170 175  
 Ser Arg Gly Gly Ser Gln Ala Ser Ser Arg Ser Ser Ser Arg Ser Arg  
 180 185 190  
 Gly Asn Ser Arg Asn Ser Thr Pro Gly Ser Ser Arg Gly Asn Ser Pro  
 195 200 205  
 Ala Arg Met Ala Ser Gly Gly Gly Glu Thr Ala Leu Ala Leu Leu Leu  
 210 215 220  
 Leu Asp Arg Leu Asn Gln Leu Glu Ser Lys Val Ser Gly Lys Gly Gln  
 225 230 235 240  
 Gln Gln Gln Gly Gln Thr Val Thr Lys Lys Ser Ala Ala Glu Ala Ser  
 245 250 255  
 Lys Lys Pro Arg Gln Lys Arg Thr Ala Thr Lys Gln Tyr Asn Val Thr  
 260 265 270  
 Gln Ala Phe Gly Arg Arg Gly Pro Glu Gln Thr Gln Gly Asn Phe Gly  
 275 280 285  
 Asp Gln Asp Leu Ile Arg Gln Gly Thr Asp Tyr Lys His Trp Pro Gln  
 290 295 300  
 Ile Ala Gln Phe Ala Pro Ser Ala Ser Ala Phe Phe Gly Met Ser Arg  
 305 310 315 320  
 Ile Gly Met Glu Val Thr Pro Ser Gly Thr Trp Leu Thr Tyr His Gly  
 325 330 335  
 Ala Ile Lys Leu Asp Asp Lys Asp Pro Gln Phe Lys Asp Asn Val Ile  
 340 345 350  
 Leu Leu Asn Lys His Ile Asp Ala Tyr Lys Thr Phe Pro Pro Thr Glu  
 355 360 365  
 Pro Lys Lys Asp Lys Lys Lys Lys Thr Asp Glu Ala Gln Pro Leu Pro  
 370 375 380  
 Gln Arg Gln Lys Lys Gln Pro Thr Val Thr Leu Leu Pro Ala Ala Asp  
 385 390 395 400  
 Met Asp Asp Phe Ser Arg Gln Leu Gln Asn Ser Met Ser Gly Ala Ser  
 405 410 415  
 Ala Asp Ser Thr Gln Ala  
 420

<210> 9965  
 <211> 39  
 <212> PRT  
 <213> SARS coronavirus

SEQLIST-20480.TXT

<400> 9965  
 Met Lys Leu Leu Ile Val Leu Thr Cys Ile Ser Leu Cys Ser Cys Ile  
 1 5 10 15  
 Cys Thr Val Val Gln Arg Cys Ala Ser Asn Lys Pro His Val Leu Glu  
 20 25 30  
 Asp Pro Cys Lys Val Gln His  
 35

<210> 9966  
 <211> 98  
 <212> PRT  
 <213> SARS coronavirus

<400> 9966  
 Met Asp Pro Asn Gln Thr Asn Val Val Pro Pro Ala Leu His Leu Val  
 1 5 10 15  
 Asp Pro Gln Ile Gln Leu Thr Ile Thr Arg Met Glu Asp Ala Met Gly  
 20 25 30  
 Gln Gly Gln Asn Ser Ala Asp Pro Lys Val Tyr Pro Ile Ile Leu Arg  
 35 40 45  
 Leu Gly Ser Gln Leu Ser Leu Ser Met Ala Arg Arg Asn Leu Asp Ser  
 50 55 60  
 Leu Glu Ala Arg Ala Phe Gln Ser Thr Pro Ile Val Val Gln Met Thr  
 65 70 75 80  
 Lys Leu Ala Thr Thr Glu Glu Leu Pro Asp Glu Phe Val Val Val Thr  
 85 90 95  
 Ala Lys

<210> 9967  
 <211> 29740  
 <212> DNA  
 <213> SARS coronavirus

<400> 9967  
 atattaggtt tttacctacc caggaaaagc caaccaacct cgatctcttg tagatctggt 60  
 ctctaaacga actttaaaat ctgtgtagct gtcgctcggc tgcattgccta gtgcacctac 120  
 gcagtataaa caataataaa ttttactgtc gttgacaaga aacgagtaac tcgtccctct 180  
 tctgcagact gcttacggtt tcgtccgtgt tgcagtcgat catcagcata cctagggtttc 240  
 gtccgggtgt gaccgaaagg taagatggag agccttggtc ttggtgtcaa cgagaaaaca 300  
 cacgtccaac tcagtttgcc tgtccttcag gttagagacg tgctagtgcg tggcttcggg 360  
 gactctgtgg aagaggccct atcggaggca cgtgaacacc tcaaaaatgg cacttgtggt 420  
 ctagtagagc tggaaaaagg cgtactgccc cagcttgaac agccctatgt gttcattaaa 480  
 cgttctgatg ccttaagcac caatcacggc cacaaggctg ttgagctggt tgcagaaatg 540  
 gacggcattc agtacggtcg tagcgggtata acactgggag tactcgtgcc acatgtgggc 600  
 gaaaccccaa ttgcataacc caatgttctt cttcgtaaga acggtaataa gggagccggt 660  
 ggtcatagct atggcatcga tctaaagtct tatgacttag gtgacgagct tggcactgat 720  
 cccattgaag attatgaaca aaactggaac actaagcatg gcagtgggtg actccgtgaa 780  
 ctactcgtg agctcaatgg aggtgcagtc actcgtatg tcgacaacaa tttctgtggc 840  
 ccagatgggt accctcttga ttgcatcaaa gattttctcg cacgcgcggg caagtcaatg 900  
 tgcactcttt ccgaacaact tgattacatc gagtcgaaga gaggtgtcta ctgctgccgt 960  
 gaccattgagc atgaaattgc ctggttcact gagcgctctg ataagagcta cgagcaccag 1020  
 acacccttcg aaattaagag tgccaagaaa tttgacactt tcaaaaggga atgcccaaag 1080  
 tttgtgtttc ctcttaactc aaaagtcaaa gtcattcaac cacgtgttga aaagaaaaag 1140  
 actgagggtt tcatggggcg tatacgtctt gtgtaccctg ttgcatctcc acaggagtgt 1200

SEQLIST-20480.TXT

aacaatatgc	acttgtctac	cttcatgaaa	tgtaatcatt	gcgatgaagt	ttcatggcag	1260
acgtgcgact	ttctgaaagc	cacttgtgaa	cattgtggca	ctgaaaattt	agttattgaa	1320
ggacctacta	catgtgggta	cctacctact	aatgctgtag	tgaaaatgcc	atgtcctgcc	1380
tgtcaagacc	cagagattgg	acctgagcat	agtgttgca	attatcacaa	ccactcaaac	1440
attgaaactc	gactccgcaa	gggaggtagg	actagatgtt	ttggaggctg	tgtgtttgcc	1500
tatgtttgct	gctataataa	gcgtgcctac	tgggttcctc	gtgctagtgc	tgatattggc	1560
tcaggccata	ctggcattac	tggtgacaat	gtggagacct	tgaatgagga	tctccttgag	1620
atactgagtc	gtgaacgtgt	taacattaac	attgtttggc	attttcattt	gaatgaagag	1680
gttgccatca	ttttggcatc	tttctctgct	tctacaagtg	cctttattga	cactataaag	1740
agtcttgatt	acaagctctt	caaaaccatt	gttgagtcct	gcggtacta	taaagttacc	1800
aagggaaagc	ccgtaaaagg	tgcttgggaa	attggacaac	agagatcagt	tttaacacca	1860
ctgtgtggtt	ttccctcaca	ggctgtcgtt	gttatcagat	caatttttgc	gcgcacactt	1920
gatgcaggaa	ttactgcaat	tcctgatttg	caaagcgag	ctgtcaccat	acttgatggt	1980
atttctgaac	agtcattacg	tcttgtcgag	gccatgggtt	atacttcaga	cctgtctacc	2040
aacagtgatc	ttattatggc	atatgtaact	gggtggtctt	tacaacagac	ttctcagtgg	2100
ttgtctaata	ttttgggcac	tactgttgaa	aaactcaggc	ctatctttga	atggattgag	2160
gcgaagaatt	gtgcagatca	tgaatttctt	aaggaatgct	gggagattct	caaatttctc	2220
attacaggtg	tttttgacat	cgtaaggggt	caaatacagg	ttgcttcaga	taacatcaag	2280
gatttgtgtg	aatgcttcat	tgatgttgtt	aacaaggcac	tcgaaatgtg	cattgatcaa	2340
gtcactatcg	ctggcgcaaa	gttgcgatca	ctcaacttag	gtgaagtctt	catcgctcaa	2400
agcaaggagc	tagcaggtgc	gtgtatacgt	ggcaaggagc	agctgcaact	actcatgcct	2460
cttaaggcac	caaaagaagt	aacctttctt	gaagggtgatt	cacatgacac	agtacttacc	2520
tctgaggagg	ttgttctcaa	gaacggtgaa	ctcgaaacac	tcgagacgcc	cgttgatagc	2580
ttcacaaatg	gagctatcgt	tggcacacca	gtctgtgtaa	atggcctcat	gctcttagag	2640
attaaggata	aagaacaata	ctgcgcattg	tctcttggtt	tactggctac	aaacaatgtc	2700
tttcgcttaa	aagggggtgc	accaattaaa	ggtgtaacct	ttggagaaga	tactgtttgg	2760
gaagttcaag	gttacaagaa	tgtgagaatc	acatttgagc	ttgatgaacg	tggtgacaaa	2820
gtgcttaatg	aaaagtgtct	tgtctacact	gttgaatccg	gtaccgaagt	tactgagttt	2880
gcattgtgtg	ttatcgctgc	tgttgtgaag	actttacaac	cagtttctga	tctccttacc	2940
aacatgggta	ttgatcttga	tgagtggagt	gtagctacat	tctacttatt	tgatgatgct	3000
ggtgaagaaa	acttttcatc	acgtatgtat	tgttcctttt	accctccaga	tgaggaagaa	3060
gaggacgatg	cagagtgtga	ggaagaagaa	attgatgaaa	cctgtgaaca	tgagtacggt	3120
acagaaattg	attactcagg	tctccctctg	gaattttggt	cctcagctga	aacagttcga	3180
gttgaggaag	aagaagagga	agactggctg	gatgatacta	ctgagcaatc	agagattgag	3240
ccagaaccag	aacctacacc	tgaagaacca	gttaatcagt	ttactgggta	tttaaaactt	3300
actgacaatg	ttgccattaa	atgtgttgac	atcggttaagg	aggcacaaa	tgctaactct	3360
atgtgtgttg	taaatccttc	taacatacac	tgaaacatg	gtgggtggtg	agcaggtgca	3420
ctcaacaagg	caaccaatgg	tgccatgcaa	aaggagagtg	atgattacat	taagctaaat	3480
ggccctctta	cagtaggagg	gtcttgtttg	ctttctggac	ataatcttgc	taagaagtgt	3540
ctgcatgttg	ttggacctaa	cctaaatgca	ggtgaggaca	tccagcttct	taaggcagca	3600
tatgaaaatt	tcaattcagg	ggacatctta	cttgaccat	tgttgtcagc	aggcatattt	3660
ggtgctaaac	cacttcagtc	tttacaagtg	tgcgtgcaga	cgggttcgtac	acagggtttat	3720
attgcagtca	atgacaaagc	tctttatgag	cagggtgtca	tggattatct	tgataacctg	3780
aagcctagag	tgaagcacc	taaacaagag	gagccacca	acacagaaga	ttccaaaact	3840
gaggagaaat	ctgtcgtaca	gaagcctgtc	gatgtgaagc	caaaaattaa	ggcctgcatt	3900
gatgagggtg	ccacaacact	ggaagaaact	aagtttctta	ccaataagtt	actcttggtt	3960
gctgatatac	atggttaagc	ttaccatgat	tctcagaaca	tgcttagagg	tgaagatatg	4020
tctttccttg	agaaggatgc	accttacatg	gtagggtgat	ttatcactag	tggtgatatc	4080
acttgtgttg	taataccctc	caaaaaggct	ggtggcacta	ctgagatgct	ctcaagagct	4140
ttgaagaaag	tgccagttga	tgagtatata	accacgtacc	ctggacaagg	atgtgctggt	4200
tatacacttg	aggaagctaa	gactgctctt	aagaaatgca	aatctgcatt	ttatgtacta	4260
ccttcagaag	cacctaatgc	taaggaagag	attctaggaa	ctgtatcctg	gaatttgaga	4320
gaaatgcttg	ctcatgctga	agagacaaga	aaattaatgc	ctatatgcat	ggatgttaga	4380
gccataatgg	caaccatcca	acgtaagtat	aaaggaatta	aaattcaaga	gggcatcggt	4440
gactatgggt	tccgattctt	cttttatact	agtaaagagc	ctgtagcttc	tattattacg	4500
aagctgaact	ctctaaatga	gccgcttgct	acaatgcca	ttggttatgt	gacacatggt	4560
tttaactctg	aagaggctgc	gcgctgtatg	cgttctctta	aagctcctgc	cgtagtgtca	4620
gtatcatcac	cagatgctgt	tactacatat	aatggatacc	tcacttcgtc	atcaaagaca	4680
tctgaggagc	actttgtaga	aacagtttct	ttggctggct	cttacagaga	ttggctctat	4740
tcaggacagc	gtacagagtt	aggtgttgaa	tttcttaagc	gtggtgacaa	aatttgtgtac	4800
cacactctgg	caggttccgt	agagcttcgt	cttgacgggt	aggttctttc	acttgacaaa	4860
ctaaagagtc	tcttatccct	gcgggaggtt	aagactataa	aagtgttcac	aactgtggac	4920
aacactaatc	tccacacaca	gcttgtggat	atgtctatga	catatggaca	gcagtttggg	4980



SEQLIST-20480.TXT

ccaacatact	tgatggtgc	tgatgttaca	aaaattaaac	ctcatgtaaa	tcattgaggg	5040
aagactttct	ttgtactacc	tagtgatgac	acactacgta	gtgaagcttt	cgagtactac	5100
catactcttg	atgagagttt	tcttggtagg	tacatgtctg	ctttaaacca	cacaaagaaa	5160
tggaatttct	ctcaagtgg	tggtttaact	tcaattaaat	gggctgataa	caattggtat	5220
ttgtctatgt	ttttattagc	acttcaacag	cttgaagtca	aattcaatgc	accagcactt	5280
caagaggctt	attatagagc	ccgtgctggt	gatgctgcta	acttttgtgc	actcatactc	5340
gcttacagta	ataaaactgt	tggtgagcct	gggtgatgtca	gagaaactat	gacccatctt	5400
ctacagcatg	ctaatttggg	atctgcaaag	cgagtctcta	atgtggtgtg	taaacattgt	5460
ggtcagaaaa	ctactacctt	aacgggtgtg	gaagctgtga	tgtatatggg	tactctatct	5520
tatgataatc	ttaagacagg	tggttccatt	ccatgtgtgt	gtggctgtga	tgctacacaa	5580
tatctagtag	aacaagagtc	ttcttttgtt	atgatgtctg	caccacctgc	tgagtataaa	5640
ttacagcaag	gtacattctt	atgtgcgaat	gagtacactg	gtaactatca	gtgtgggtcat	5700
tacactcata	taactgtctaa	ggagaccctc	tatcgatttg	acggagctca	ccttacaaag	5760
atgtcagagt	acaaaggacc	agtactgat	gttttctaca	aggaaacatc	ttactactaca	5820
accatcaagc	ctgtgtcgtg	taaaactcgt	ggagttaact	acacagagat	tgaacaaaaa	5880
ttggatgggt	attataaaaa	ggataatgct	tactatacag	agcagcctat	agaccttgta	5940
ccaacttaac	taactgcaaa	tgcgagtgtt	gataatttca	aactcacatg	ttctaacaca	6000
aaatttgctg	atgattttaa	tcaaatgaca	ggcttcacaa	agccagcttc	acgagagcta	6060
tctgtcacat	tcttcccaga	cttgaatggc	gatgtagtgg	ctattgacta	tagacactat	6120
tcagcgagtt	tcaagaaagg	tgctaaatta	ctgcataagc	caattgtttg	gcacattaac	6180
caggctaaac	ccaagaccaa	aactttgggt	aacacttggg	gtttacgttg	tctttggagt	6240
acaaagccag	tagatacttc	aaattcattt	gaagtctcgg	cagtagaaga	cacacaagga	6300
atggacaatc	ttgcttgtga	aagtcaacaa	cccacctctg	aagaagtagt	ggaaaaatcct	6360
accatacaga	aggaagtcat	agagtgtgac	gtgaaaacta	ccgaagtgtg	aggcaatgtc	6420
atacttaaac	catcagactg	aggtgtttaa	gtaaaccaag	agttaggtca	tgaggatctt	6480
atggctgctt	atgtggaaaa	cacaagcatt	accattaaga	aacctaatga	gctttcacta	6540
gccttagggt	taaaaacaat	tgccactcat	ggtattgctg	caattaatag	tgttccttgg	6600
agtaaaattt	tggtctatgt	caaaccattc	ttaggacaag	cagcaattac	aacatcaaat	6660
tgcgctaaga	taactgcaaa	acgtgtgtgt	aacaatttata	tgcccttatgt	gtttacatta	6720
ttgttccaat	tgtgtacttt	tactaaaagt	accaatttcta	gaattagagc	ttcactacct	6780
acaactattg	ctaaaaatag	tgtaaagagt	gttgctaaat	tatgtttgga	tgccggcatt	6840
aattatgtga	agtcacccaa	atttttctaaa	ttgttcacaa	tcgctatgtg	gctattgttg	6900
ttaaagtatt	gcttaggttc	tctaactctg	gttaactctg	cttttggtgt	actcttatct	6960
aattttggtg	ctccttctta	ttgtaatggc	gttagagaat	tgtatcttaa	ttcgtctaac	7020
gttactacta	tggaatttctg	tgaagggtct	tttccttgca	gcatttggtt	aagtggatta	7080
gactcccttg	attcttatcc	agctcttgaa	accattcagg	tgacgatctc	atcgtacaag	7140
ctagacttga	caatttttag	tcaggccgct	gagtgggttt	tgccatataat	gtgtgtcaca	7200
aaattctttt	atttattagg	tctttcagct	ataatgcagg	tggtcttttg	ctattttgct	7260
agtcatttca	tcagcaattc	ttggctcatg	tggtttatca	ttagtattgt	acaaatggca	7320
cccgtttctg	caatggttag	gatgtacatc	ttctttgctt	cttttctacta	catatggaag	7380
agctatgttc	atattgttag	tggttgacc	tcttcgactt	gcatgatgtg	ctataagcgc	7440
aatcgtgcc	cacgcgttga	gtgtacaact	attgttaatg	gcatgaagag	atctttctat	7500
gtctatgcaa	atggaggccg	tggtctctgc	aagactcaca	attggaattg	tctcaattgt	7560
gacacatttt	gcactggtag	tacattcatt	agtgtatga	ttgtctcgta	tttgtcactc	7620
cagtttaaaa	gaccaatcaa	ccctactgac	cagtcatcgt	atattgttga	tagtgttgct	7680
gtgaaaaatg	gcgcgcttca	cctctacttt	gacaaggctg	gtcaaaaagac	ctatgagaga	7740
catccgctct	cccattttgt	caatttagac	aatttgagag	ctaacaacac	taaagggttca	7800
ctgcctatta	atgtcatagt	ttttgatggc	aagtccaaat	gcgacgagtc	tgcttctaag	7860
tctgcttctg	tgtactacag	tcagctgatg	tgccaacctt	ttctgttgct	tgaccaagct	7920
cttgatcatg	acgttgga	tagtactgaa	gtttccgtta	agatgtttga	tgcttatgtc	7980
gacacctttt	cagcaacttt	tagtgttcct	atggaaaaac	ttaaggcact	tggttgctaca	8040
gctcacagcg	agttagcaaa	gggtgtagct	ttagatgggtg	tccttttctac	attcgtgtca	8100
gctgcccgc	aagggtgtgt	tgataccgat	gttgacacaa	aggatgttat	tgaatgtctc	8160
aaactttcac	atcactctga	cttagaagtg	acagggtgaca	gttgtaacaa	tttcatgtctc	8220
acctataata	aggttgaaaa	catgacgccc	agagatcttg	gcgcatgtat	tgactgtaat	8280
gcaaggcata	tcaatgcccc	agtagcaaaa	agtcacaatg	tttctactcat	ctggaatgta	8340
aaagactaca	tgcttttatc	tgaacagctg	cgtaaaacaa	ttcgtagtgc	tgccaagaag	8400
aacaacatac	cttttagact	aacttggtct	acaactagac	aggttggtcaa	tgctataact	8460
actaaaatct	cactcaagg	tggttaagatt	gttagtactt	gttttaaaact	tatgcttaag	8520
gccacattat	tgtgctgtct	tgctgcattg	gtttgttata	tcgttatgcc	agtacataca	8580
ttgtcaatcc	ataatgggtta	cacaaatgaa	atcatttggtt	acaaagccat	tcaggatggt	8640
gtcactcgtg	acatcatttc	tactgatgat	tgttttgcaa	ataaacatgc	tggttttgac	8700
gcatggttta	gccagcgtgg	tggttcatac	aaaaatgaca	aaagctgccc	tgtagtagct	8760

SEQLIST-20480.TXT

gctatcatta	caagagagat	tggtttcata	gtgcctggct	taccgggtac	tgtgctgaga	8820
gcaatcaatg	gtgacttctt	gcattttcta	cctcgtgttt	ttagtgctgt	tggcaacatt	8880
tgctacacac	cttccaaact	cattgagtat	agtgattttg	ctacctctgc	ttgcgttctt	8940
gctgctgagt	gtacaatttt	taaggatgct	atgggcaaac	ctgtgccata	ttgttatgac	9000
actaatttgc	tagaggggtc	tatttcttat	agtgaagctt	gtccagacac	tcgttatgtg	9060
cttatggatg	gttccatcat	acagtttcct	aacacttacc	tggaggggtc	tgtagagagta	9120
gtaacaactt	ttgatgctga	gtactgtaga	catgggtacat	gcgaaagggtc	agaagtaggt	9180
atttgcctat	ctaccagtg	tagatgggtt	cttaataatg	agcattacag	agctctatca	9240
ggagttttct	gtgggtgtga	tgcgatgaat	ctcatagcta	acatctttac	tcctcttggtg	9300
caacctgtgg	gtgctttaga	tgtgtctgct	tcagtagtgg	ctgggtggat	tattgccata	9360
ttgggtgactt	gtgctgccta	ctactttatg	aaattcagac	gtgtttttgg	tgagtacaac	9420
catgtttgtg	ctgctaatagc	acttttgttt	ttgatgtctt	tcactatact	ctgtctggta	9480
ccagctttaca	gctttctg	gggagttctac	ctagtctttt	acttgtaact	gacattctat	9540
ttcaccaatg	atgtttcatt	cttggctcac	cttcaatgg	ttgccatgtt	ttctcctatt	9600
gtgccttttt	ggataacagc	aatctatgta	ttctgtat	ctctgaagca	ctgccattgg	9660
ttctttaaca	actatcttag	gaaaagagtc	atgtttaatg	gagttacatt	tagtaccttc	9720
gaggagggctg	ctttgtgctc	cttttggctc	tttaaggaaa	tgtacctaaa	attgctgtgc	9780
gagacactgt	tgccacttac	acagtataac	aggtatcttg	ctctatataa	caagtacaag	9840
tatttcagtg	gagccttaga	tactaccagc	tatcgtgaag	cagcttgctg	ccacttagca	9900
aaggctctaa	atgactttag	caactcaggt	gctgatgttc	tctaccaaac	accacagaca	9960
tcaatcactt	ctgtgttctt	gcagagtgtt	tttaggaaaa	tggcattccc	gtcaggcaaa	10020
gttgaaggg	gcattgttaca	agtaacctgt	ggaactacaa	ctcttaattg	attgtgggtg	10080
gatgacacag	tatactgtcc	aagacatgtc	atttgcacag	cagaagacat	gcttaatcct	10140
aactatgaag	atctgtctcat	tcgcaaatcc	aacctatagct	ttcttgttca	ggctggcaat	10200
gttcaacttc	gtgttatgtg	ccattctatg	caaaaattgtc	tgcttaggct	taaagtgtat	10260
acttctaacc	ctaagacacc	caagtataaa	tttgtccgta	tccaacctgg	tcaaacattt	10320
tcagttctag	catgtctaaa	tggttcacca	tctggtgttt	atcagtggtc	catgagacct	10380
aatcatacca	ttaaagggtc	tttccctaat	ggatcatgtg	gtagtgttgg	ttttaacatt	10440
gattatgatt	gcgtgtcttt	ctgctatatg	catcataatg	agcttccaac	aggagtacac	10500
gctggtagctg	acttagaagg	taaattctat	gggtccatttg	ttgacagaca	aactgcacag	10560
gctgcaggta	cagacacaac	cataacatta	aatgttttgg	catggctgta	tgctgtctgtt	10620
atcaatgggt	ataggtgggt	tcttaataga	ttcaccacta	ctttgaatga	ctttaacctt	10680
gtggcaatga	gtggtatgtg	tgaacctttg	atgttgacat	attgggacct	attgggacct	10740
ctttctgctc	aaacaggaat	tgccgtctta	gatatgtgtg	ctgctttgaa	agagctgtctg	10800
cagaatggta	tgaatggctg	tactatcctt	ggtagcacta	ttttagaaga	tgagtttaca	10860
ccatttgatg	ttgttagaca	atgctctgg	gttaccttcc	aaggtaagtt	caagaaaatt	10920
gttaagggca	ctcatcattg	gatgtcttta	actttcttga	catcactatt	gattcttgtt	10980
caaagtacac	agtggctcact	gtttttcttt	gtttacgaga	atgctttctt	gccatttact	11040
cttgggtatta	tggcaattgc	tgcatgtgct	atgctgtctg	ttaaagcataa	gcacgcattc	11100
ttgtgtctgt	ttctgttacc	ttctcttgca	acagttgctt	actttaatat	gggtctacatg	11160
cctgcttagct	gggtgatg	tatcatgaca	tggcttgacac	tggctgacac	tagcttgtct	11220
ggttataggc	ttaaaggattg	tggttatgtat	gcttcagctt	tagttttgct	tattctcatg	11280
acagctcgca	ctgtttatga	tgatgtctg	agacgtgttt	ggacactgat	gaatgtcatt	11340
acacttgttt	acaaagtcta	ctatggtaat	gcttttagatc	aagctatttc	catgtggg	11400
ttagtatttt	ctgtaacctc	taactattct	gggtgcgtta	cgactattat	gtttttagct	11460
agagctatag	tgtttgtgtg	tggttagtat	taccttattg	tatttattac	tggcaacacc	11520
ttacagtgtg	tcagtctgtg	ttattgtttc	ttaggctatt	gttgctgtctg	ctactttggc	11580
cttttctgtt	tactcaaccg	ttacttcagg	cttactcttg	gtgtttatga	ctacttggct	11640
tctacacaag	aatttaggta	tatgaactcc	caggggcttt	tgccctctaa	gagtagtatt	11700
gatgctttca	agcttaacat	taagtgtgtg	ggatttggag	gtaaaccatg	tatcaagggt	11760
gctactgtac	agtctaaaat	gtctgacgta	aagtgcacat	ctgtgggtact	gctctcggtt	11820
cttcaacaac	ttagagtaga	gtcatcttct	aaattgtggg	cacaatgtgt	acaactccac	11880
aatgatattc	ttcttgcaaa	agacacaact	gaagctttcg	agaagatgg	ttctcttttg	11940
tctgttttgc	tatccatgca	gggtgctgta	gacattaata	ggttgtgcga	ggaaatgctc	12000
gataaccgtg	ctactcttca	ggctattgct	tcagaattta	gttctttacc	atcatatgcc	12060
gcttatgcc	ctgcccagga	ggcctatgag	caggctgtag	ctaattgggtg	ttctgaagtc	12120
gttctcaaaa	agttaaagaa	atctttgaat	gtggctaaat	ctgagtttga	ccgtgatgct	12180
gccatgcaac	gcaagttgga	aaagatggca	gatcaggcta	tgacccaaat	gtacaaacag	12240
gcaagatctg	aggacaagag	ggcaaaaagta	actagtgtga	tgcaacaat	gctcttctact	12300
atgcttagga	agcttgataa	tgatgcactt	aacaacatta	tcaacaatgc	gcgtgatggt	12360
tggtttccac	tcaacatcat	accttgactt	acacagacca	aactcatggt	tggtgtccct	12420
gattatggta	cctacaagaa	cacttgtgat	ggtaaacacct	ttacatatgc	atctgcactc	12480
tgggaaatcc	agcaagtgtg	tgatgcggat	agcaagattg	ttcaacttag	tgaatttaac	12540

SEQLIST-20480.TXT

atggacaatt	caccaaattt	ggcttggcct	cttattgtta	cagctctaag	agccaactca	12600
gctgttaaac	tacagaataa	tgaactgagt	ccagtagcac	tacgacagat	gtcctgtgcg	12660
gctggtacca	cacaaacagc	ttgtactgat	gacaatgcac	ttgcctacta	taacaattcg	12720
aagggaggta	ggttttgtgt	ggcattacta	tcagaccacc	aagatctcaa	atgggctaga	12780
ttccctaaga	gtgatggtac	agggtacaatt	tacacagaac	tggaaaccacc	ttgtaggttt	12840
gttacagaca	caccaaagg	gcctaaagt	aaatacttgt	acttcatcaa	aggcttaaac	12900
aacctaataa	gaggtatggt	gctgggcagt	ttagctgcta	cagtacgtct	tcaggctgga	12960
aatgctacag	aagtaccctgc	caattcaact	gtgctttcct	tctgtgcttt	tgcagtagac	13020
cctgctaaag	catataagga	ttacctagca	agtggaggac	aaccaatcac	caactgtgtg	13080
aagatgttgt	gtacacacac	ttgttacagga	caggcaatta	ctgtaacacc	agaagctaac	13140
atggaccaag	agtccttttg	ttgtgtctca	tggtgtctgt	attgtagatg	ccacattgac	13200
catccaaatc	ctaaaggatt	ctgtgacttg	aaaggtaagt	acgtccaaat	acctaccact	13260
ttgtgctaag	accagtgagg	ttttacactt	agaaacacag	tctgtaccgt	ctgcggaatg	13320
tggaaagggt	atggctgtag	ttgtgaccaa	ctccgcgaac	ccttgatgca	gtctgcggat	13380
gcatcaacgt	ttttaaacgg	gtttgcggtg	taagtgcagc	ccgtcttaca	ccgtgcggca	13440
caggcactag	tactgatgtc	gtctacaggg	cttttgatat	ttacaacgaa	aaagttgctg	13500
gttttgcaaa	gttccataaaa	actaattgct	gtcgtctcca	ggagaaggat	gaggaaggca	13560
tttttaagta	ctcttaactt	gtagttaaga	gtctaactac	caacatgaag	gattgggtatg	13620
agactattta	taacttggtt	aaagattgtc	cagcggttgc	tgtccatgac	tttttcaagt	13680
ttagagtaga	ttgtgacatg	gtaccacata	tatcacgtca	gcgtctaact	aaatacacaa	13740
ttggtgattt	agtctatgct	ctacgtcatt	ttgatgaggg	taattgtgat	acattaaaag	13800
aaataactcg	cacatacaat	ttgtgtgatg	tggtatttatt	caataagaag	gattgggtatg	13860
acttcgtaga	gaatcctgac	atcttacgcg	tatatgctaa	cttaggtgag	cgtgtacgcc	13920
aatcattatt	aaagactgta	caattctgcg	atgctatgcg	tgatgcaggc	attgtaggcg	13980
tactgacatt	agataatcag	gatcttaatg	ggaactggta	cgatttcggg	gatttcgtac	14040
aagttagcacc	aggctgcgga	gttccatttg	ttactcattg	ctgatgccca	gttccacctg	14100
tcctcacttt	gactagggca	ttggctgctg	agtcccatat	ggatgctgat	ctcgcaaaac	14160
cacttattaa	gtgggatttg	ctgaaatatg	attttacgga	agagagactt	tgtctcttcg	14220
accgttattt	taaatatgtg	gaccagacat	accatcccaa	ttgtattaac	tgtttggtatg	14280
atagtgattt	ctttcattgt	gcgaaacttta	atgtgttatt	ttctactgtg	tttccacctg	14340
caagtttttg	accactagta	agaaaaatat	ttgtagatgg	tgttcctttt	gttgtttcaa	14400
ctggatacca	ttttcgtgag	ttaggagtcg	tacataatca	ggatgtaaac	ttacatagct	14460
cgcgctctag	tttcaaggaa	cttttagtgt	atgctgctga	tccagctatg	catgcagctt	14520
ctggcatggt	taacatgctt	aaacgcacta	agtagctgca	agtagctgca	ctaacaaca	14580
atgttgcttt	tcaaactgtc	aaacccggtg	attttaataa	agacttttat	gacttttgctg	14640
tgtctaaagg	tttctttaag	gaagggaagt	ctgttgaaac	aaaacacttc	ttctttgctc	14700
aggatggcaa	cgctgctatc	agtgtattatg	actattatcg	ttataatctg	ccaacaatgt	14760
gtgatattcg	ttcgtagttg	ttcgtagttg	aagtgtttga	taaatacttt	gattgtttacg	14820
atggtggctg	tattaatgcc	aaaccaagta	tcgttaacaa	tctggataaa	tcagctgggtt	14880
tcccatttaa	taaatggggt	aaggctagac	tttattatga	ctcaatgagt	tatgaggatc	14940
aagatgcact	tttcgcgtat	actaagcgta	atgtccaccg	tactataact	caaatagaatc	15000
tttaagtatg	aaagaaatag	tttcatcaga	ctcgcaccgt	agctgggtgc	tctatctgta	15060
gtactatgac	aaatagacag	tttcatcaga	aattattgaa	gtcaatagcc	gccactagag	15120
gagctactgt	ggtaattgga	acaagcaagt	tttacgggtg	ctggcataat	atgttaaaaa	15180
ctgtttacag	tgatgtagaa	actccacacc	ttatgggttg	ggattatcca	aaatgtgaca	15240
gagccatgcc	taacatgctt	aggataatgg	cctctcttgt	tcttgctcgc	aaacataaca	15300
cttgctgtaa	cttatcacac	cgtttctaca	ggttagctaa	cgagtgtgcg	caagtattaa	15360
gtgagatggt	catgtgtggc	ggctcactat	atgttaaacc	agggtggaaca	tcatccgggtg	15420
atgctacaac	tgcttatgct	aatagtgtct	ttaacatttg	tcaagctggt	acagccaatg	15480
taaatgcact	cttttcaact	gatggtaata	agatagctga	caagtatgtc	cgcaatctac	15540
aacacaggct	ctatgagtgt	ctctatagaa	atagggatgt	tgatcatgaa	ttcgtggatg	15600
agttttacgc	ttacctgcgt	aaacatttct	ccatgatgat	tctttctgat	gatgccgttg	15660
tgtgctataa	cagtaactat	gcggctcaag	gttttagtagc	tagcattaag	aactttaagg	15720
cagttcttta	ttatcaaaat	aatgtgtttca	tgctcgaggc	aaaatgttgg	actgagactg	15780
accttactaa	aggacctcac	gaattttgct	cacagcatac	aatgctagtt	aaacaaggag	15840
atgattacgt	gtacctgcct	tacccagatc	catcaagaat	attaggcgca	ggctgttttg	15900
tcgatgatat	tgtaaaaaca	gatggtacac	ttatgattga	aagggttcgtg	tcactggcta	15960
ttgatgctta	cccacttaca	aaacatccta	atcaggagta	tgctgatgtc	tttcaactgt	16020
atttacaata	cattagaaag	ttacatgatg	agcttactgg	ccacatgttg	gacatgtatt	16080
ccgtaatgct	aactaatgat	aacacctcac	ggtagctggg	acctgagttt	tatgaggcta	16140
gttacacacc	acatacagtc	ttgcaggctg	taggtgcttg	tgtattgtgc	aattcacaga	16200
cttcacttcg	ttgcgggtgc	tgtatttagg	gaccttcctt	atgttgcaag	tgctgctatg	16260
accatgtcat	ttcaacatca	cacaaattag	tggtgtctgt	taatccctat	gtttgcaatg	16320

SEQLIST-20480.TXT

ccccaggttg	tgatgtcact	gatgtgacac	aactgtatct	aggaggtatg	agctattatt	16380
gcaagtcaca	taagcctccc	attagttttc	cattatgtgc	taatggtcag	gtttttggtt	16440
tatacaaaaa	cacatgtgta	ggcagtgaca	atgtcactga	cttcaatgcg	atagcaacat	16500
gtgattggac	taatgctggc	gattacatac	ttgccaacac	ttgtactgag	agactcaagc	16560
ttttcgcagc	agaaacgctc	aaagccactg	aggaacaatt	taagctgtca	tatggatttg	16620
ccactgtacg	cgaagtactc	tctgacagag	aattgcatct	ttcatgggag	gttggaaaac	16680
ctagaccacc	attgaacaga	aactatgtct	ttactgggtta	ccgtgtaact	aaaaatagta	16740
aagtacagat	tggagagtac	acctttgaaa	aaggtgacta	tgggtgatgct	gttgtgtaca	16800
gaggtactac	gacatacaag	ttgaatgttg	gtgattactt	tgtgttgaca	tctcacactg	16860
taatgccact	tagtgcacct	actctagtgc	cacaagagca	ctatgtgaga	attactggct	16920
tgtacccaac	actcaacatc	tcagatgagt	tttctagcaa	tgttgcaaat	tatcaaaaagg	16980
tcggcatgca	aaagtactct	acactccaag	gaccacctgg	tactggtaag	agtcattttg	17040
ccatcggact	tgtctctctg	tacctatctg	ctgcataagt	gtatacggca	tgctctcatg	17100
cagctgttga	tgccctatgt	gaaaaggcat	taaaatatct	gccccatagat	aaatgtagta	17160
gaatcatacc	tgcgcgtgcg	cgcgtagagt	gttttgataa	attcaaagtg	aattcaacac	17220
tagaacagta	tgttttctgc	actgtaaagt	cattgccaga	aacaactgct	gacattgtag	17280
tcctttgatga	aatctctatg	gctactaatt	atgactttgag	tgttgtcaat	gctagacttc	17340
gtgcaaaaca	ctacgtctat	attggcgatc	ctgtcaaat	accagccccc	cgcacattgc	17400
tgactaaagg	cacactagaa	ccagaatatt	ttaattcagt	gtgcagactt	atgaaaacaa	17460
taggtccaga	catgttcctt	ggaacttgct	gccgttgctc	tgctgaaatt	gttgacactg	17520
tgagtgtctt	agtttatgac	aataagctaa	aagcacacaa	ggataagtca	gctcaatgct	17580
tcaaaatggt	tacataagggt	gttattacac	atgtgtcttc	atctgcaatc	aacagacctc	17640
aaataggcgt	tgtaagagaa	tttcttacac	gcaatcctgc	ttggagaaaa	gctgttttta	17700
tctcacctta	taattcacag	aacgctgtag	cttcaaaaat	cttaggattg	cctacgcaga	17760
ctgttgattc	atcacagggg	tctgaatatg	actatgtcat	attcacacaa	actactgaaa	17820
cagcacactc	ttgtaatgtc	aaccgcttca	atgtggctat	cacaagggca	aaaattggca	17880
ttttgtgcat	aatgtctgat	agagatcttt	atgacaaact	gcaatttaca	agtctagaaa	17940
taccacgtcg	caatgtggct	acattacaag	cagaaaaatgt	aactggactt	tttaaggact	18000
gtagtaagat	cattactggg	cttcaccta	cacaggcacc	tacacacctc	agcgttgata	18060
taaagtctca	taagtgaagg	ttatgtgttg	acataccagg	cataccaaag	gacatgacct	18120
accgtagact	catctctatg	atgggtttca	aaatgaatta	ccaagtcaat	ggttacccta	18180
atatgtttat	cacccgcgaa	gaagctattc	gtcacgttcg	tgctgtggatt	ggctttgatg	18240
tagagggtcg	tcattgcaact	agagatgctg	tggtgtactaa	cctacctctc	cagctaggat	18300
tttctacagg	tgtaacttta	gtagctgtac	cgatggctta	tgttgacact	gaaaataaca	18360
cagaattcac	cagagttaat	gcaaaacctc	caccaggtga	ccagttaaaa	catcttatac	18420
cactcatgta	taaaggcttg	ccctggaatg	tagtgcgtat	taagatagta	caaatgctca	18480
gtgatatact	gaaaggattg	tcagacagag	tcgtgttcgt	cctttgggcg	catggccttg	18540
agcttacatc	aatgtaaggac	tttgtcaaga	ttggacttga	aagaacgtgt	tgtctgtgtg	18600
acaaacgtgc	aacttgcttt	tctacttcat	cagatactta	tgctgtctgg	aatcattctg	18660
tgggttttga	ctatgtctat	aaccatttta	tgattgatgt	tcagcagtg	ggcttttacg	18720
gtaaccttca	gagtaaccat	gaccaacatt	gccaggtaca	tggaaatgca	catgtggcta	18780
gttgtgatgc	tatcatgact	agatgtttag	cagtcctatga	gtgctttgtt	aagcgcgttg	18840
attgggtctgt	tgaataccct	attataggag	atgaactgag	ggttaattct	gcttcagaaa	18900
aagtacaaca	cttggtttgtg	aagtctgcat	tgcttgctga	taagtttcca	gttcttcatg	18960
acataggaaa	tccaaaggct	atcaagtgtg	tgccctcaggc	tgaagtagaa	tggaggttct	19020
acgatgtctca	gccatgtagt	gacaaagctt	acaaaataga	ggaactcttc	tattcttatg	19080
ctatacatca	cgataaattc	actgatgggtg	tttgtttgtt	ttggaattgt	aacgttgatc	19140
gttaccacgc	caatgcaatt	gtgtgtaggt	ttgacacaag	agtcttgtca	aacttgaact	19200
taccaggctg	tgatgggtgg	agtttgtatg	tgaataagca	tgcatccac	actccagctt	19260
tcgataaaaag	tgcatttact	aatttaaagc	aattgccttt	cttttactat	tctgatagtc	19320
cttgtgagtc	tcattggcaaa	caagtagtgt	cggatattga	ttatgttcca	ctcaaatctg	19380
ctacgtgtat	tacacgatgc	aatttaggtg	gtgctgtttg	cagacacccat	gcaaatgagt	19440
accgacagta	cttggatgca	tataatatga	tgatttctgc	tggatttagc	ctatggattt	19500
acaaacaatt	tgatacttat	aacctgtgga	atacatttac	cagggttacag	agtttagaaa	19560
atgtggctta	taatgtttgt	aataaaggac	actttgatgg	acacgccggc	gaagcacctg	19620
tttccatcat	taataatgct	gtttacacaa	aggtagatgg	tattgatgtg	gagatctttg	19680
aaaataagac	aacacttcct	gttaatgttg	catttgagct	ttgggctaag	cgtaacatta	19740
aaccagtgcc	agagattaag	atactcaata	atttgggtgt	tgatatacgct	gctaatactg	19800
taatctggga	ctacaaaaga	gaagccccag	cacatgtatc	tacaataggt	gtctgcacaa	19860
tgactgacat	tgccaagaaa	cctactgaga	gtgcttgctc	ttcacttact	gtcttgtttg	19920
atggtagagt	ggaaggacag	gtagaccttt	ttagaaaagc	ccgtaatggg	gttttaataa	19980
cagaagggtc	agtcaaagg	ctaaccctt	caaaggacc	agcacaagct	agcgtcaatg	20040
gagtcacatt	aattggagaa	tcagtaaaaa	cacagtttaa	ctactttaag	aaagtagacg	20100

SEQLIST-20480.TXT

gcattattca	acagttgcct	gaaacctact	ttactcagag	cagagactta	gaggattttta	20160
agcccagatc	acaaatggaa	actgactttc	tcgagctcgc	tatggatgaa	ttcatacagc	20220
gatataagct	cgagggctat	gccttcgaac	acatcgttta	tggagatttc	agtcattggac	20280
aacttggcgg	tcttcatttta	atgataggct	tagccaagcg	ctcacaagat	tcaccactta	20340
aatttagagga	ttttatccct	atggacagca	cagtgaaaaa	ttacttcata	acagatgcgc	20400
aaacagggttc	atcaaaatgt	gtgtgttctg	tgattgatct	tttacttgat	gactttgtcg	20460
agataataaa	gtcacaagat	ttgtcagtg	tttcaaaagt	gggtcaagggt	acaattgact	20520
atgctgaaat	ttcattcatg	ccttggtgtg	aggatggaca	tggtgaaacc	ttctacccaa	20580
aactacaagc	aagtcaagcg	tggtcaaccag	gtgttgcgat	gcctaacttg	tacaagatgc	20640
aaagaatgct	tcttgaaaag	tgtgaccttc	agaattatgg	tgaaaatgct	gttatacca	20700
aaggaataat	gatgaatgtc	gcaaagtata	ctcaactgtg	tcaatactta	aatacactta	20760
ctttagctgt	accctacaac	atgagagtta	ttcacttttg	tgctggctct	gataaaggag	20820
ttgtaccagg	tacgtctgtg	ctcagacaat	gggttgccaa	tggtcactta	cctgtcgatt	20880
cagatcttaa	tgacttcgtc	tccgacgcag	attctacttt	aattggagac	tgtgcaacag	20940
tacatacggc	taataaatgg	gaccttatta	ttagcgatat	gtatgaccct	aggaccaaac	21000
atgtgacaaa	agagaatgac	tctaaagaag	ggtttttcac	ttatctgtgt	ggattttata	21060
agcaataaat	agccctgggt	gggttctatg	ctgtataaat	aacagagcat	tcttggaatg	21120
ctgaccttta	caagcttatg	ggccatttct	catgggtggac	agcttttggt	acaaatgtaa	21180
atgcatcatc	atcggaagca	tttttaattg	gggctaacta	tcttggcaag	ccgaaggaa	21240
aaattgatgg	ctataccatg	catgctaact	acattttctg	gaggaacaca	aatcctatcc	21300
agttgtcttc	tacattcact	tttgacatga	gcaaaatgcc	tcttaaatga	agaggaactg	21360
ctgtaatgtc	tcttaaggag	aatcaaatca	atgatatgat	ttattctctt	ctggaaaaag	21420
gtaggccttat	cattagagaa	aacaacagag	ttgtgggttc	aagtgatatt	cctgttaaca	21480
actaaacgaa	catgtttatt	ttcttattat	ttcttactct	cactagtggg	agtgcacctg	21540
accgggtgac	cacttttgat	gatgttcaag	ctcctaatta	cactcaacat	acttcactta	21600
tgaggggggt	ttactatcct	gatgaaatgt	ttagatcaga	cactctttat	ttactcagg	21660
atatttttct	tccattttat	tctaattgta	caggggttca	tactattaat	catacgtttg	21720
gcaaccctgt	catacctttt	aaggatggta	tttattttgc	tgccacagag	aaatcaaatg	21780
ttgtccgtgg	ttgggttttt	ggttctacca	tgaaaaataa	gtcacagtcg	gtgattatta	21840
ttaacaattc	tactaatgtt	gttatcacg	catgtaactt	tgaattgtgt	gacaaccctt	21900
tctttgctgt	ttctaaaccc	atgggtacac	agacacatac	tatgatattc	gataatgcat	21960
ttaatgtcac	tttcgagtac	atatctgatg	ccttttcgct	tgatgtttca	gaaaagtcag	22020
gtaattttta	acactttacg	gagtttgtgt	ttaaaaataa	agatgggttt	ctctatgttt	22080
ataagggcta	tcaacctata	gatgtagttc	gtgatctacc	ttctgggttt	aacactttga	22140
aacctatttt	taagttgcct	cttgggtatta	acattacaaa	tttttagagcc	attcttacag	22200
ccttttcacc	tgctcaagac	atttggggca	cgctcagctg	agcctatttt	gttgggtatt	22260
gtaattttta	tacattttat	ctcaagtatg	atgaaatggg	tacaatcaca	gatgctgttg	22320
attgtttctc	aaatccactt	gctgaactca	aatgctctgt	taagagcttt	gagattgaca	22380
aaggaattta	ccagacctct	aatttcaggg	ttgttccctc	aggagatggt	gtgagattcc	22440
ctaataattc	aaacttgtgt	ccttttggag	aggtttttta	tgctactaaa	ttcccttctg	22500
tctaataatt	ggagagaaaa	aaaatttcta	attgttgtgc	tgattactct	gtgctctaca	22560
actcaacatt	tttttcaacc	tttaagtgtc	atggcggttc	tgccactaag	ttgaatgatc	22620
tttgcttctc	caatgtctat	gcagattctt	ttgtagtcaa	gggagatgat	gtaagacaaa	22680
tagcgccagg	acaaactggg	gttattgtct	attataatta	taaaattgca	gatgatttca	22740
tgggttgtgt	ccttgccttg	aatactagga	acattgtatg	tacttcaact	ggtaattata	22800
attataaata	taggtatctt	agacatggca	agcttagggc	ccttgagaga	gacatatcta	22860
atgtgccttt	ctcccttgat	ggcaaacctt	gcacccacac	tgctcttaat	tgttattggc	22920
cattaaatga	ttatgggttt	tacaccacta	ctggcatttg	ctaccaacct	tacagagttg	22980
tagtactttc	ttttgaactt	ttaaatgcac	cggccacggg	ttgtggacca	aaattatcca	23040
ctgaccttat	taagaaccag	tgtgtcaatt	tttaattttta	tggaactcact	ggtactgggtg	23100
tgttaaactcc	ttcttcaaag	agatttcaac	catttcaaca	atttggccgt	gatgtttctg	23160
atttcactga	ttccgttcca	gatcctaaaa	catctgaaat	attagacatt	tcaccttgct	23220
ccttttgggg	tgtaagtgtg	attacacctg	gaacaaatgc	ttcatctgaa	gttgctgttc	23280
tatatcaaga	tgtaactgac	actgatgttt	ctacagcaat	tcatgcagat	caactcacac	23340
cagcttgggc	catatattct	actggaaaaca	atgtattcca	gactcaagca	ggctgtctta	23400
taggagctga	gcattgtcgac	acttcttatg	agtgcgacat	tcctattgga	gctggcattt	23460
gtgctagtta	ccatacagtt	tctttattac	gtagtactag	ccaaaaatct	attgtggctt	23520
atactatgtc	tttaggtgct	gatagttaa	ttgcttactc	taataacacc	attgctatac	23580
ctactaactt	ttcaatttag	attactacag	aagtaatgcc	tgtttctatg	gctaaaacct	23640
ccgtagattg	taatatgtac	atctgcggag	attctactga	atgtgcta	ttgcttctcc	23700
aatatggtag	cctttgcaca	caactaaatc	gtgcactctc	aggattgtgt	gctgaacagg	23760
atcgcaacac	acgtgaagtg	ttcgctcaag	tcaaacaaat	gtacaaaacc	ccaactttga	23820
aatatttttg	tggtttta	ttttcacaaa	tattacctga	ccctctaaag	ccaactaaga	23880

SEQLIST-20480.TXT

ggctcttttat	tgaggacttg	ctctttaata	aggtgacact	cgctgatgct	ggcttcatga	23940
agcaatatgg	cgaatgccta	ggatgatatta	atgctagaga	tctcatttgt	gcgcagaagt	24000
tcaatggact	tacagtgttg	ccacctctgc	tcactgatga	tatgattgct	gcctacactg	24060
ctgctctagt	tagtggctact	gccactgctg	gatggacatt	tgggtgctggc	gctgctcttc	24120
aaataccttt	tgctatgcaa	atggcatata	ggttcaatgg	cattggagtt	acccaaaatg	24180
ttctctatga	gaaccaaata	caaactcgcca	accaatttaa	caaggcgatt	agtcaaattc	24240
aagaatcact	tacaacaaca	tcaactgcat	tgggcaagct	gcaagacggt	gttaaccaga	24300
atgctcaagc	attaaacaca	cttggttaaac	aacttagctc	taattttggt	gcaatttcaa	24360
gtgtgctaaa	tgatatacct	tcgcgacttg	ataaagtcga	ggcggaggta	caaattgaca	24420
ggttaattac	aggcagactt	caaagccttc	aaacctatgt	aacacaacaa	ctaatacagg	24480
ctgctgaaat	cagggcttct	gctaactctt	ctgctactaa	aatgtctgag	tgtgttcttg	24540
gacaatcaaa	aagagttgac	ttttgtggaa	agggtctacca	ccttatgtcc	ttcccacaag	24600
cagccccgca	tgggtgtgtc	ttctacatg	tccatgata	gccatcccag	gagaggaaat	24660
tcaccacagc	gccagcaatt	tgtcatgaag	gcaaagcata	cttccctcgt	gaagggtgtt	24720
ttgtgtttta	tggcacttct	tgggtttata	cacagaggaa	cttcttttct	ccacaaataa	24780
ttactacaga	caatacattt	gtctcaggaa	attgtgatgt	cgttattggc	atcattaaca	24840
acacagttta	acacgttctg	caacctgagc	ttgactcaat	caaagaagag	ctggacaagt	24900
acttcaaaaa	tcatacatca	ccagatgttg	attttggcga	catttcaggc	attaacgctt	24960
ctgtcgtcaa	cattcaaaaa	gaaattgacc	gcctcaatga	ggctcgctaaa	aattttaaat	25020
aatcactcat	tgaccttcaa	gaattgggaa	aatatgagca	atatattaaa	tggccttggg	25080
atgtttggct	cggcttcttc	gctggactaa	ttggcactct	catggttaca	atcttgcttt	25140
gttgcatgac	tgaattgttg	agttgcctca	agggtgcatg	ctcttggtgt	tcttgctgca	25200
agtttgatga	ggatgactct	gagccagttc	tcaagggtgt	caaattacat	tacacataaa	25260
cgaacttatg	gatttgttta	tgagattttt	tactcttgga	tcaattactg	cacagccagt	25320
aaaaattgac	aatgcttctc	ctgcaagtat	tgttcatgct	acagcaacga	taccgctaca	25380
agcctcactc	cctttcggat	ggcttggtat	tggcgttgca	tttcttgctg	tttttcagag	25440
cgctaccaaa	ataattgctc	tcaataaaag	atggcagcta	gcccccttata	agggtctcca	25500
gttcatttgc	aatttactgc	tgctatttgt	taccatctat	tcacatcttt	tgcttgctgc	25560
tgcaggatag	gaggcgcaat	ttttgtacct	ctatgccttg	atatattttc	tacaatgcac	25620
caacgcattg	agaattatta	tgagatgttg	gctttgttgg	aagtgcacaa	ccaagaacct	25680
attactttat	gatgccaaat	actttgtttg	ctggcacaca	cataactatg	actactgtat	25740
accatataac	agtgtcacag	atacaattgt	cgttactgaa	ggtgacggca	tttcaacacc	25800
aaaactcaaa	gaagcttcaa	aaattgggtg	tattcttgag	gataggcact	cagggtgtta	25860
agactatgtc	gtgtgtacat	gctatttcac	cgaagtgtac	taccagcttg	agcttacaca	25920
aattactaca	gacactggta	ttgaaaatgc	tacattcttc	atctttaaca	agcttggtta	25980
agaccacccg	aatgtgcaaa	tacacacaat	cgacggctct	tcaggagttg	ctaataccagc	26040
aatggatcca	atttatgatg	agccgacgac	gactactagc	gtgcctttgt	aagcacacaga	26100
aagtgcattg	gaacttatgt	atcattctgt	ttcggaaaga	acaggtagct	taatagttaa	26160
tagcgtactt	ctttttcttg	ctttcgtggt	attcttgcta	gtcacactag	ccatccttac	26220
tgcgcttcga	ttgtgtgcgt	actgctgcaa	tattgttaac	gtgagtttag	taaaaccaac	26280
ggtttacgct	tactcgcgtg	ttaaaaatct	gaactcttct	gaaggagttc	ctgatcttct	26340
ggctctaaac	aactaactat	tattattatt	ctgtttggaa	ctttaacatt	gcttatcatg	26400
gcagacaacg	gtactattac	cgttgaggag	cttaaaacaac	tccttgaaca	atggaacctt	26460
gtaattaggtt	tcctatttct	agcctggatt	atgttactac	aatttgccta	ttctaatacg	26520
aacaggtttt	tgtacataat	aaagcttggt	ttccttggtg	tcttggtggc	agtaaacatt	26580
gcttggtttg	tgcttgctgt	tgcttacaga	attaattggg	tgactggcgg	gattgctgatt	26640
gcaatggctt	gtattgtagg	cttgatgtgg	cttagctact	tcgttgcttc	cttcaggctg	26700
tttgctcgta	cccgtcfaat	gtggtcattc	aaccacagaaa	caaacattct	tctcaatgtg	26760
cctctccggg	ggacaattgt	gaccagaccg	ctcatggaaa	gtgaacttgt	cattgggtgt	26820
gtgatcattc	gtggtcactt	gcgaatggcc	ggacactccc	tagggcgctg	tgacatttaag	26880
gacctgcca	aagagatcac	tgtggctaca	tcacgaacgc	tttcttatta	caaattagga	26940
gcgtcgcagc	gtgtaggcac	tgattcaggt	tttgctgcat	acaaccgcta	ccgtattgga	27000
aactataaat	taaatacaga	ccacgcgggt	agcaacgaca	atattgcttt	gctagtacag	27060
taagtgcaca	cagatgtttc	atcttggtga	cttccagggt	acaatagcag	agatattgat	27120
tatcattatg	aggactttca	ggattgctat	ttggaatctt	gacgttataa	taagttcaat	27180
agtgcagaca	ttattttaag	ctctaaactaa	gaagaattat	tcggagttag	atgatgaaga	27240
acctatggag	ttagattatc	cataaaacga	acatgaaaat	tattctcttc	ctgacattga	27300
ttgtattttac	atcttgcgag	ctatatcact	atcaggagtg	tgttagaggt	acgactgtac	27360
tactaaaaga	accttgccca	tcagggaacat	acgagggcaa	ttcacatttt	caccctcttg	27420
ctgacaataa	atttgactca	acttgactca	gcacacactt	tgcttttgct	tgtgctgacg	27480
gtactgcaga	tacctatcag	ctgcgtgcaa	gatcagtttc	acccaaaact	ttcatcagac	27540
aagaggaggt	tcaacaagag	ctctactcgc	cactttttct	cattgttgct	gctctagtat	27600
ttttaatact	ttgcttcacc	attaagagaa	agacagaatg	aatgagctca	ctttaattga	27660

SEQLIST-20480.TXT

cttctatttg	tgctttttag	cttttctgct	attccttggt	ttaataatgc	ttattatatt	27720
ttggttttca	ctcgaaatcc	aggatctaga	agaaccttgt	accaaagtct	aaacgaacat	27780
gaaactttct	attgttttga	cttgtatttc	tctatgcagt	tgcatatgca	ctgtagtaca	27840
gcgctgtgca	tctaataaac	ctcatgtgct	tgaagatcct	tgttaaggta	aacactaggg	27900
gtaatactta	tagcactgct	tggttttggt	ctctaggaaa	ggtttttacc	tttcatagat	27960
ggcacactat	ggttcaaaca	tgcacacctt	atgttactat	caactgtcaa	gatccagctg	28020
gtggtgctgt	tatagctagg	tggtggtacc	ttcatgaagg	tcaccaaact	gctgcattta	28080
gagacgtact	tggtgtttta	aataaacgaa	caaattaaaa	tgtctgataa	tggaccccaa	28140
tcaaaccaac	gtagtgcccc	ccgcattaca	tttggtggag	ccacagattc	aactgacaat	28200
aaccagaatg	gaggacgcaa	tggggcaagg	ccaaaacagc	gccgacccca	agggtttacc	28260
aataatattg	cgtcttggtt	cacagctctc	actcagcatg	gcaaggagga	acttagattc	28320
cctcgaggcc	agggcggttc	aatcaacacc	aatagtgggt	cagatgacca	aattggctac	28380
taccgaagag	ctacccgacg	agttcgtggt	ggtgacggca	aaatgaaaga	gctcagcccc	28440
agatggtact	tcattacgct	aggaactggc	ccagaagcct	cacttcccta	cggcgctaac	28500
aaagaaggca	tcgtatgggt	tgcaactgag	ggagccttga	atacacccaa	agaccacatt	28560
ggcaccgcga	atcctaataa	caatgctgcc	accgtgctac	aacttcctca	aggaacaaca	28620
ttgccaaaag	gcttctacgc	agaggggaag	agagggcgga	gtcaagcctc	ttctcgctcc	28680
tcatacgta	gtcgcgttaa	ttcaagaaat	tcaactcctg	gcagcagtag	gggaaattct	28740
cctgctcgaa	tggctagcgg	aggtggtgaa	actgccctcg	cgctattgct	gctagacaga	28800
ttgaaccagc	ttgagagcaa	agtttctggt	aaaggccaac	aacaacaagg	ccaaactgtc	28860
actaagaaat	ctgctgctga	ggcatctaaa	aagcctcgcc	aaaaacgtac	tgccacaaaa	28920
cagtaacaag	tcactcaagc	atttgggaga	cggtgtccag	aacaaaccca	aggaaatttc	28980
ggggaccaag	acctaatacag	acaaggaact	gattacaaac	attggccgca	aattgcacaa	29040
tttgctccaa	gtgcctctgc	attccttgga	atgtcacgca	ttggcatgga	agtcacacct	29100
tcgggaacat	ggctgactta	tcattggagcc	attaaattgg	atgacaaaga	tccacaattc	29160
aaagacaacg	tcatactgct	gaacaagcac	attgacgcat	acaaaacatt	cccaccaaca	29220
gagcctaaaa	aggacaaaaa	gaaaaagact	gatgaagctc	agcctttgcc	gcagagacaa	29280
aagaagcagc	ccactgtgac	tcttcttctc	gcggctgaca	tggatgattt	ctccagacaa	29340
cttcaaaaatt	ccatgagtgg	agcttctgct	gattcaactc	aggcataaac	actcatgatg	29400
accacacaag	tcagatgggc	tatgtaaacg	ttttcgcaat	tccgttttacg	atacatagtc	29460
tactcttggt	cagaatgaat	tctcgtaact	aaacagcaca	agtaggttta	gttaacttta	29520
atctcacata	gcaatcttta	atcaatgtgt	aacattaggg	aggacttgaa	agagccacca	29580
catttttcac	gaggccacgc	ggagtacgat	cgaggggtaca	gtgaataatg	ctagggagag	29640
ctgcctatat	ggaagagccc	taatgtgtaa	aattaatatt	agtagtgcta	tccccatgtg	29700
attttaatag	cttcttagga	gaatgacaaa	aaaaaaaaaa			29740

<210> 9968  
 <211> 690  
 <212> DNA  
 <213> SARS coronavirus

<400>	9968					
ccaaaggaca	tgacctacgt	agactcatct	ctatgatggg	tttcaaaatg	aattaccaag	60
tcaatgggta	ccctaataatg	tttatcacc	gcgaagaagc	tattcgtcac	gttcgtgctg	120
ggattggctt	tgatgtagag	ggctgtcatg	caactagaga	tgctgtgggt	actaacctac	180
ctctccagct	aggattttct	acagggtgta	acttagtagc	tgtaccgact	ggttatgttg	240
acactgaaaa	taacacaaaa	ttcaccagag	ttaatgcaca	aacctccacc	agtgagcagt	300
ttaaaccatct	tataccactc	atgtataaag	gcttgccctg	gaatgtagtg	cgtattaaga	360
tagtacaaat	gctcagtgat	acactgaaag	gattgtcaga	cagagtcgtg	ttcgtccttt	420
gggcgcgatg	ctttgagctt	acatcaatga	agtactttgt	caagattgga	cctgaaagaa	480
cggtgtgtct	gtgtgacaaa	cggtgcaact	gcttttctac	ttcatcagat	acttatgcct	540
gctggaatca	ttctgtgggt	tttgactatg	tctataaacc	atttatgatt	gatgttcagc	600
agtgggggct	ttacgggtaa	ctttcagag	taaccatgac	caacattgcc	agggtacatg	660
aaatgcacat	gtgggctagt	tgtgatgcta				690

<210> 9969  
 <211> 11  
 <212> PRT  
 <213> SARS coronavirus

<400> 9969  
 Pro Lys Asp Met Thr Tyr Val Asp Ser Ser Leu



```

1          5          10
<210>      9970
<211>      28
<212>      PRT
<213>      SARS coronavirus

<400>      9970
Ile Thr Lys Ser Met Val Thr Leu Ile Cys Leu Ser Pro Ala Lys Lys
1          5          10          15
Leu Phe Val Thr Phe Val Arg Gly Leu Ala Leu Met
          20          25

<210>      9971
<211>      17
<212>      PRT
<213>      SARS coronavirus

<400>      9971
Arg Ala Val Met Gln Leu Glu Met Leu Tr Val Leu Thr Tyr Leu Ser
1          5          10          15
Ser

<210>      9972
<211>      7
<212>      PRT
<213>      SARS coronavirus

<400>      9972
As Phe Leu Gln Val Leu Thr
1          5

<210>      9973
<211>      42
<212>      PRT
<213>      SARS coronavirus

<400>      9973
Leu Tyr Arg Leu Val Met Leu Thr Leu Lys Ile Thr Gln Asn Ser Pro
1          5          10          15
Glu Leu Met is Lys Pro Pro Pro Val Ser Ser Leu Asn Ile Leu Tyr
          20          25          30
is Ser Cys Ile Lys Ala Cys Pro Gly Met
          35          40

<210>      9974
<211>      4
<212>      PRT
<213>      SARS coronavirus

<400>      9974
Cys Val Leu Arg
1

<210>      9975
<211>      7
<212>      PRT
<213>      SARS coronavirus

```



SEQLIST-20480.TXT

<400> 9975  
Tyr Lys Cys Ser Val Ile His  
1 5

<210> 9976  
<211> 20  
<212> PRT  
<213> SARS coronavirus

<400> 9976  
Lys Asp Cys Gln Thr Glu Ser Cys Ser Ser Phe Gly Arg Met Ala Leu  
1 5 10 15  
Ser Leu His Gln  
20

<210> 9977  
<211> 45  
<212> PRT  
<213> SARS coronavirus

<400> 9977  
Ser Thr Leu Ser Arg Leu Asp Leu Lys Glu Arg Val Val Cys Val Thr  
1 5 10 15  
Asn Val Gln Leu Ala Phe Leu Leu His Gln Ile Leu Met Pro Ala Gly  
20 25 30  
Ile Ile Leu Trp Val Leu Thr Met Ser Ile Thr His Leu  
35 40 45

<210> 9978  
<211> 14  
<212> PRT  
<213> SARS coronavirus

<400> 9978  
Leu Met Phe Ser Ser Gly Gly Phe Thr Gly Asn Leu Ser Glu  
1 5 10

<210> 9979  
<211> 17  
<212> PRT  
<213> SARS coronavirus

<400> 9979  
Pro Thr Leu Pro Gly Thr Trp Lys Cys Thr Cys Gly Leu Val Val Met  
1 5 10 15  
Leu

<210> 9980  
<211> 17  
<212> PRT  
<213> SARS coronavirus

<400> 9980  
Thr His Leu Tyr Asp Gly Phe Gln Asn Glu Leu Pro Ser Gln Trp Leu  
1 5 10 15  
Pro

SEQLIST-20480.TXT

<210> 9981  
 <211> 18  
 <212> PRT  
 <213> SARS coronavirus

<400> 9981  
 Tyr Val Tyr His Pro Arg Arg Ser Tyr Ser Ser Arg Ser Cys Val Asp  
 1 5 10 15  
 Trp Leu

<210> 9982  
 <211> 7  
 <212> PRT  
 <213> SARS coronavirus

<400> 9982  
 Cys Arg Gly Leu Ser Cys Asn  
 1 5

<210> 9983  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 9983  
 Arg Cys Cys Gly Tyr  
 1 5

<210> 9984  
 <211> 11  
 <212> PRT  
 <213> SARS coronavirus

<400> 9984  
 Pro Thr Ser Pro Ala Arg Ile Phe Tyr Arg Cys  
 1 5 10

<210> 9985  
 <211> 9  
 <212> PRT  
 <213> SARS coronavirus

<400> 9985  
 Leu Ser Ser Cys Thr Asp Trp Leu Cys  
 1 5

<210> 9986  
 <211> 6  
 <212> PRT  
 <213> SARS coronavirus

<400> 9986  
 His Lys Ile His Gln Ser  
 1 5

<210> 9987  
 <211> 6  
 <212> PRT  
 <213> SARS coronavirus

SEQLIST-20480.TXT

<400> 9987  
Cys Thr Asn Leu His Gln  
1 5

<210> 9988  
<211> 7  
<212> PRT  
<213> SARS coronavirus

<400> 9988  
Thr Ser Tyr Thr Thr His Val  
1 5

<210> 9989  
<211> 9  
<212> PRT  
<213> SARS coronavirus

<400> 9989  
Arg Leu Ala Leu Glu Cys Ser Ala Tyr  
1 5

<210> 9990  
<211> 6  
<212> PRT  
<213> SARS coronavirus

<400> 9990  
Asp Ser Thr Asn Ala Gln  
1 5

<210> 9991  
<211> 18  
<212> PRT  
<213> SARS coronavirus

<400> 9991  
Tyr Thr Glu Arg Ile Val Arg Gln Ser Arg Val Arg Pro Leu Gly Ala  
1 5 10 15

Trp Leu

<210> 9992  
<211> 12  
<212> PRT  
<213> SARS coronavirus

<400> 9992  
Ala Tyr Ile Asn Glu Val Leu Cys Gln Asp Trp Thr  
1 5 10

<210> 9993  
<211> 6  
<212> PRT  
<213> SARS coronavirus

<400> 9993  
Lys Asn Val Leu Ser Val  
1 5

<210> 9994

SEQLIST-20480.TXT

<211> 22  
<212> PRT  
<213> SARS coronavirus

<400> 9994  
Gln Thr Cys Asn Leu Leu Phe Tyr Phe Ile Arg Tyr Leu Cys Leu Leu  
1 5 10 15

Glu Ser Phe Cys Gly Phe  
20

<210> 9995  
<211> 4  
<212> PRT  
<213> SARS coronavirus

<400> 9995  
Pro Ile Tyr Asp  
1

<210> 9996  
<211> 28  
<212> PRT  
<213> SARS coronavirus

<400> 9996  
Cys Ser Ala Val Gly Ala Leu Arg Val Thr Phe Gln Ser Asn His Asp  
1 5 10 15

Gln His Cys Gln Val His Gly Asn Ala His Val Gly  
20 25

<210> 9997  
<211> 205  
<212> PRT  
<213> SARS coronavirus

<400> 9997  
Lys Gly His Asp Leu Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met  
1 5 10 15

Asn Tyr Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu  
20 25 30

Ala Ile Arg His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys  
35 40 45

His Ala Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly  
50 55 60

Phe Ser Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp  
65 70 75 80

Thr Glu Asn Asn Thr Lys Phe Thr Arg Val Asn Ala Gln Thr Ser Thr  
85 90 95

Ser Glu Gln Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro  
100 105 110

Trp Asn Val Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu  
115 120 125

Lys Gly Leu Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe

SEQLIST-20480.TXT

130

135

140

Glu Leu Thr Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr  
145 150 155 160

Cys Cys Leu Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp  
165 170 175

Thr Tyr Ala Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn  
180 185 190

Pro Phe Met Ile Asp Val Gln Gln Trp Gly Leu Tyr Gly  
195 200 205

<210> 9998

<211> 23

<212> PRT

<213> SARS coronavirus

<400> 9998

Pro Phe Arg Val Thr Met Thr Asn Ile Ala Arg Tyr Met Glu Met His  
1 5 10 15

Met Trp Ala Ser Cys Asp Ala  
20

<210> 9999

<211> 16

<212> PRT

<213> SARS coronavirus

<400> 9999

Pro Thr Cys Ala Phe Pro Cys Thr Trp Gln Cys Trp Ser Trp Leu Leu  
1 5 10 15

<210> 10000

<211> 13

<212> PRT

<213> SARS coronavirus

<400> 10000

Lys Val Thr Arg Lys Ala Pro Thr Ala Glu His Gln Ser  
1 5 10

<210> 10001

<211> 21

<212> PRT

<213> SARS coronavirus

<400> 10001

Met Gly Tyr Arg His Ser Gln Asn Pro Gln Asn Asp Ser Ser Arg His  
1 5 10 15

Lys Tyr Leu Met Lys  
20

<210> 10002

<211> 18

<212> PRT

<213> SARS coronavirus

<400> 10002

SEQLIST-20480.TXT

Lys Ser Lys Leu His Val Cys His Thr Asp Asn Thr Phe Phe Gln Val  
1 5 10 15

Gln Ser

<210> 10003  
<211> 6  
<212> PRT  
<213> SARS coronavirus

<400> 10003  
Gln Ser Thr Ser Leu Met  
1 5

<210> 10004  
<211> 21  
<212> PRT  
<213> SARS coronavirus

<400> 10004  
Ala Gln Ser His Ala Pro Lys Gly Arg Thr Arg Leu Cys Leu Thr Ile  
1 5 10 15

Leu Ser Val Tyr His  
20

<210> 10005  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 10005  
Ala Phe Val Leu Ser  
1 5

<210> 10006  
<211> 11  
<212> PRT  
<213> SARS coronavirus

<400> 10006  
Tyr Ala Leu His Ser Arg Ala Ser Leu Tyr Thr  
1 5 10

<210> 10007  
<211> 9  
<212> PRT  
<213> SARS coronavirus

<400> 10007  
Thr Ala His Trp Trp Arg Phe Val His  
1 5

<210> 10008  
<211> 17  
<212> PRT  
<213> SARS coronavirus

<400> 10008  
Ile Leu Cys Tyr Phe Gln Cys Gln His Asn Gln Ser Val Gln Leu Leu  
1 5 10 15

Ser

<210> 10009  
 <211> 8  
 <212> PRT  
 <213> SARS coronavirus

<400> 10009  
 Lys Ile Leu Ala Gly Glu Val Gly  
 1 5

<210> 10010  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 10010  
 Tyr Pro Gln His Leu  
 1 5

<210> 10011  
 <211> 17  
 <212> PRT  
 <213> SARS coronavirus

<400> 10011  
 Leu His Asp Ser Pro Leu His Gln Ser Gln Ser Thr His Glu Arg Asp  
 1 5 10 15

Glu

<210> 10012  
 <211> 4  
 <212> PRT  
 <213> SARS coronavirus

<400> 10012  
 Leu Leu Arg Gly  
 1

<210> 10013  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 10013  
 Leu Gly Asn Ser Phe  
 1 5

<210> 10014  
 <211> 8  
 <212> PRT  
 <213> SARS coronavirus

<400> 10014  
 Val Tyr Val Gly His Val Leu Trp  
 1 5

<210> 10015  
 <211> 54  
 <212> PRT

SEQLIST-20480.TXT

<213> SARS coronavirus

<400> 10015

Ser Ile Thr Thr Ser Pro His Val His Phe His Val Pro Gly Asn Val  
1 5 10 15  
Gly His Gly Tyr Ser Glu Arg Leu Pro Val Lys Pro Pro Leu Leu Asn  
20 25 30  
Ile Asn His Lys Trp Val Ile Asp Ile Val Lys Thr His Arg Met Ile  
35 40 45  
Pro Ala Gly Ile Ser Ile  
50

<210> 10016

<211> 25

<212> PRT

<213> SARS coronavirus

<400> 10016

Ser Arg Lys Ala Ser Cys Thr Phe Val Thr Gln Thr Thr Arg Ser Phe  
1 5 10 15  
Arg Ser Asn Leu Asp Lys Val Leu His  
20 25

<210> 10017

<211> 15

<212> PRT

<213> SARS coronavirus

<400> 10017

Cys Lys Leu Lys Ala Met Arg Pro Lys Asp Glu His Asp Ser Val  
1 5 10 15

<210> 10018

<211> 60

<212> PRT

<213> SARS coronavirus

<400> 10018

Gln Ser Phe Gln Cys Ile Thr Glu His Leu Tyr Tyr Leu Asn Thr His  
1 5 10 15  
Tyr Ile Pro Gly Gln Ala Phe Ile His Glu Trp Tyr Lys Met Phe Lys  
20 25 30  
Leu Leu Thr Gly Gly Gly Leu Cys Ile Asn Ser Gly Glu Phe Cys Val  
35 40 45  
Ile Phe Ser Val Asn Ile Thr Ser Arg Tyr Ser Tyr  
50 55 60

<210> 10019

<211> 7

<212> PRT

<213> SARS coronavirus

<400> 10019

Val Asn Thr Cys Arg Lys Ser  
1 5



SEQLIST-20480.TXT

<210> 10020

<211> 53

<212> PRT

<213> SARS coronavirus

<400> 10020

Val Ser Thr His Ser Ile Ser Ser Cys Met Thr Ala Leu Tyr Ile Lys  
1 5 10 15

Ala Asn Pro Arg Thr Asn Val Thr Asn Ser Phe Phe Ala Gly Asp Lys  
20 25 30

His Ile Arg Val Thr Ile Asp Leu Val Ile His Phe Glu Thr His His  
35 40 45

Arg Asp Glu Ser Thr  
50

<210> 10021

<211> 4

<212> PRT

<213> SARS coronavirus

<400> 10021

Val Met Ser Phe  
1

<210> 10022

<211> 25

<212> PRT

<213> SARS coronavirus

<400> 10022

Ala Ser Gln Leu Ala His Met Cys Ile Ser Met Tyr Leu Ala Met Leu  
1 5 10 15

Val Met Val Thr Leu Lys Gly Tyr Pro  
20 25

<210> 10023

<211> 4

<212> PRT

<213> SARS coronavirus

<400> 10023

Ser Pro His Cys  
1

<210> 10024

<211> 7

<212> PRT

<213> SARS coronavirus

<400> 10024

Thr Ser Ile Ile Asn Gly Leu  
1 5

<210> 10025

<211> 5

<212> PRT

<213> SARS coronavirus

<400> 10025

SEQLIST-20480.TXT

Ser Lys Pro Thr Glu  
1 5

<210> 10026  
<211> 4  
<212> PRT  
<213> SARS coronavirus

<400> 10026  
Phe Gln Gln Ala  
1

<210> 10027  
<211> 99  
<212> PRT  
<213> SARS coronavirus

<400> 10027  
Val Ser Asp Glu Val Glu Lys Gln Val Ala Arg Leu Ser His Arg Gln  
1 5 10 15

His Val Leu Ser Gly Pro Ile Leu Thr Lys Tyr Phe Ile Asp Val Ser  
20 25 30

Ser Lys Pro Cys Ala Gln Arg Thr Asn Thr Thr Leu Ser Asp Asn Pro  
35 40 45

Phe Ser Val Ser Leu Ser Ile Cys Thr Ile Leu Ile Arg Thr Thr Phe  
50 55 60

Gln Gly Lys Pro Leu Tyr Met Ser Gly Ile Arg Cys Leu Asn Cys Ser  
65 70 75 80

Leu Val Glu Val Cys Ala Leu Thr Leu Val Asn Phe Val Leu Phe Ser  
85 90 95

Val Ser Thr

<210> 10028  
<211> 28  
<212> PRT  
<213> SARS coronavirus

<400> 10028  
Pro Val Gly Thr Ala Thr Lys Leu Thr Pro Val Glu Asn Pro Ser Trp  
1 5 10 15

Arg Gly Arg Leu Val Pro Thr Ala Ser Leu Val Ala  
20 25

<210> 10029  
<211> 12  
<212> PRT  
<213> SARS coronavirus

<400> 10029  
Gln Pro Ser Thr Ser Lys Pro Ile His Ala Arg Thr  
1 5 10

<210> 10030  
<211> 12  
<212> PRT

SEQLIST-20480.TXT

<213> SARS coronavirus

<400> 10030

Arg Ile Ala Ser Ser Arg Val Ile Asn Ile Leu Gly  
1 5 10

<210> 10031

<211> 4

<212> PRT

<213> SARS coronavirus

<400> 10031

Pro Leu Thr Trp  
1

<210> 10032

<211> 17

<212> PRT

<213> SARS coronavirus

<400> 10032

Phe Ile Leu Lys Pro Ile Ile Glu Met Ser Leu Arg Arg Ser Cys Pro  
1 5 10 15

Leu

<210> 10033

<211> 302

<212> DNA

<213> Artificial Sequence

<220>

<223> BNI-1 amplicon

<400> 10033

taccgtagac	tcattcttat	gatgggtttc	aaaatgaatt	accaagtcaa	tggttaccct	60
aatatgttta	tcacccgcga	agaagctatt	cgtcacgttc	gtgcgtggat	tggttttgat	120
gtagagggct	gtcatgcaac	tagagatgct	gtgggtacta	acctacctct	ccagctagga	180
ttttctacag	gtgttaactt	agtagctgta	ccgactgggt	atgttgacac	tgaaaataac	240
acagaattca	ccagagttaa	tgcaaaacct	ccaccagggtg	accagtttaa	acatcttata	300
cc						302

<210> 10034

<211> 100

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10034

Tyr Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met Asn Tyr Gln Val  
1 5 10 15

Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu Ala Ile Arg His  
20 25 30

Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys His Ala Thr Arg  
35 40 45

Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly Phe Ser Thr Gly  
50 55 60

SEQLIST-20480.TXT

Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp Thr Glu Asn Asn  
65 70 75 80

Thr Glu Phe Thr Arg Val Asn Ala Lys Pro Pro Pro Gly Asp Gln Phe  
85 90 95

Lys His Leu Ile  
100

<210> 10035  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10035  
Thr Val Asp Ser Ser Leu  
1 5

<210> 10036  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10036  
Trp Val Ser Lys  
1

<210> 10037  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10037  
Ile Thr Lys Ser Met Val Thr Leu Ile Cys Leu Ser Pro Ala Lys Lys  
1 5 10 15

Leu Phe Val Thr Phe Val Arg Gly Leu Ala Leu Met  
20 25

<210> 10038  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10038  
Arg Ala Val Met Gln Leu Glu Met Leu Trp Val Leu Thr Tyr Leu Ser  
1 5 10 15

Ser

SEQLIST-20480.TXT

<210> 10039  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10039  
 Asp Phe Leu Gln Val Leu Thr  
 1 5

<210> 10040  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10040  
 Leu Tyr Arg Leu Val Met Leu Thr Leu Lys Ile Thr Gln Asn Ser Pro  
 1 5 10 15  
 Glu Leu Met Gln Asn Leu His Gln Val Thr Ser Leu Asn Ile Leu Tyr  
 20 25 30

<210> 10041  
 <211> 17  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10041  
 Thr His Leu Tyr Asp Gly Phe Gln Asn Glu Leu Pro Ser Gln Trp Leu  
 1 5 10 15

Pro

<210> 10042  
 <211> 18  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10042  
 Tyr Val Tyr His Pro Arg Arg Ser Tyr Ser Ser Arg Ser Cys Val Asp  
 1 5 10 15

Trp Leu

<210> 10043  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

SEQLIST-20480.TXT

```

<220>
<223>   Inferred translation product

<400>   10043
Cys Arg Gly Leu Ser Cys Asn
1           5

<210>   10044
<211>   5
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10044
Arg Cys Cys Gly Tyr
1           5

<210>   10045
<211>   11
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10045
Pro Thr Ser Pro Ala Arg Ile Phe Tyr Arg Cys
1           5           10

<210>   10046
<211>   9
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10046
Leu Ser Ser Cys Thr Asp Trp Leu Cys
1           5

<210>   10047
<211>   6
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10047
His Arg Ile His Gln Ser
1           5

<210>   10048
<211>   6
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

```

SEQLIST-20480.TXT

<400> 10048  
Cys Lys Thr Ser Thr Arg  
1 5

<210> 10049  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10049  
Thr Ser Tyr Thr  
1

<210> 10050  
<211> 27  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10050  
Gly Ile Arg Cys Leu Asn Trp Ser Pro Gly Gly Gly Phe Ala Leu Thr  
1 5 10 15

Leu Val Asn Ser Val Leu Phe Ser Val Ser Thr  
20 25

<210> 10051  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10051  
Pro Val Gly Thr Ala Thr Lys Leu Thr Pro Val Glu Asn Pro Ser Trp  
1 5 10 15

Arg Gly Arg Leu Val Pro Thr Ala Ser Leu Val Ala  
20 25

<210> 10052  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10052  
Gln Pro Ser Thr Ser Lys Pro Ile His Ala Arg Thr  
1 5 10

<210> 10053  
<211> 12  
<212> PRT  
<213> Artificial Sequence

SEQLIST-20480.TXT

```

<220>
<223>   Inferred translation product

<400>   10053
Arg Ile Ala Ser Ser Arg Val Ile Asn Ile Leu Gly
1       5       10

<210>   10054
<211>   4
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10054
Pro Leu Thr Trp
1

<210>   10055
<211>   12
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10055
Phe Ile Leu Lys Pro Ile Ile Glu Met Ser Leu Arg
1       5       10

<210>   10056
<211>   9
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10056
Thr Gly His Leu Val Glu Val Leu His
1       5

<210>   10057
<211>   17
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10057
Ile Leu Cys Tyr Phe Gln Cys Gln His Asn Gln Ser Val Gln Leu Leu
1       5       10       15

Ser

<210>   10058
<211>   8
<212>   PRT
<213>   Artificial Sequence

```



SEQLIST-20480.TXT

<220>  
<223> Inferred translation product

<400> 10058  
Lys Ile Leu Ala Gly Glu Val Gly  
1 5

<210> 10059  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10059  
Tyr Pro Gln His Leu  
1 5

<210> 10060  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10060  
Leu His Asp Ser Pro Leu His Gln Ser Gln Ser Thr His Glu Arg Asp  
1 5 10 15

Glu

<210> 10061  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10061  
Leu Leu Arg Gly  
1

<210> 10062  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10062  
Leu Gly Asn Ser Phe  
1 5

<210> 10063  
<211> 33  
<212> PRT  
<213> Artificial Sequence

SEQLIST-20480.TXT

<220>  
 <223> Inferred translation product  
 <400> 10063  
 Tyr Lys Met Phe Lys Leu Val Thr Trp Trp Arg Phe Cys Ile Asn Ser  
 1 5 10 15  
 Gly Glu Phe Cys Val Ile Phe Ser Val Asn Ile Thr Ser Arg Tyr Ser  
 20 25 30

Tyr

<210> 10064  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10064  
 Val Asn Thr Cys Arg Lys Ser  
 1 5

<210> 10065  
 <211> 54  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10065  
 Val Ser Thr His Ser Ile Ser Ser Cys Met Thr Ala Leu Tyr Ile Lys  
 1 5 10 15  
 Ala Asn Pro Arg Thr Asn Val Thr Asn Ser Phe Phe Ala Gly Asp Lys  
 20 25 30  
 His Ile Arg Val Thr Ile Asp Leu Val Ile His Phe Glu Thr His His  
 35 40 45

Arg Asp Glu Ser Thr Val  
 50

<210> 10066  
 <211> 374  
 <212> DNA  
 <213> SARS coronavirus

<400> 10066  
 actcatgtat aaaggcttgc cctggaatgt agtgcgtatt aagatagtagt aaatgctcag 60  
 tgatacactg aaaggattgt cagacagagt cgtgttcgct ctttgggagc atggctttga 120  
 gcttacatca atgaagtact ttgtcaagat tggacctgaa agaacgtgtt gtctgtgtga 180  
 caaacgtgca acttgctttt ctacttcac agatacttat gcctgctgga atcattctgt 240  
 gggttttgac tatgtctata acccatttat gattgatgtt cagcagtggg ggcttttacgg 300  
 gtaacctttc agagtaacca tgaccaacat tgccaggtagt atggaaatgc acatgtgggc 360  
 tagttgtgat gcta 374

<210> 10067  
 <211> 102

SEQLIST-20480.TXT

<212> PRT  
<213> SARS coronavirus

<400> 10067

Pro Pro Leu Met Tyr Lys Gly Leu Pro Trp Asn Val Val Arg Ile Lys  
1 5 10 15  
Ile Val Gln Met Leu Ser Asp Thr Leu Lys Gly Leu Ser Asp Arg Val  
20 25 30  
Val Phe Val Leu Trp Ala His Gly Phe Glu Leu Thr Ser Met Lys Tyr  
35 40 45  
Phe Val Lys Ile Gly Pro Glu Arg Thr Cys Cys Leu Cys Asp Lys Arg  
50 55 60  
Ala Thr Cys Phe Ser Thr Ser Ser Asp Thr Tyr Ala Cys Trp Asn His  
65 70 75 80  
Ser Val Gly Phe Asp Tyr Val Tyr Asn Pro Phe Met Ile Asp Val Gln  
85 90 95  
Gln Trp Gly Leu Tyr Gly  
100

<210> 10068  
<211> 930  
<212> PRT  
<213> Bovine coronavirus

<400> 10068

Leu Thr Asn Tyr Glu Leu Ser Val Ile Asn Ala Arg Ile Arg Ala Lys  
1 5 10 15  
His Tyr Val Tyr Ile Gly Asp Pro Ala Gln Leu Pro Ala Pro Arg Val  
20 25 30  
Leu Leu Ser Lys Gly Thr Leu Glu Pro Lys Tyr Phe Asn Thr Val Thr  
35 40 45  
Lys Leu Met Cys Cys Leu Gly Pro Asp Ile Phe Leu Gly Thr Cys Tyr  
50 55 60  
Arg Cys Pro Lys Glu Ile Val Asp Thr Val Ser Ala Leu Val Tyr Glu  
65 70 75 80  
Asn Lys Leu Lys Ala Lys Asn Glu Ser Ser Ser Leu Cys Phe Lys Val  
85 90 95  
Tyr Tyr Lys Gly Val Thr Thr His Glu Ser Ser Ser Ala Val Asn Met  
100 105 110  
Gln Gln Ile Tyr Leu Ile Asn Lys Phe Leu Lys Ala Asn Pro Leu Trp  
115 120 125  
His Lys Ala Val Phe Ile Ser Pro Tyr Asn Ser Gln Asn Phe Ala Ala  
130 135 140  
Lys Arg Val Leu Gly Leu Gln Thr Gln Thr Val Asp Ser Ala Gln Gly  
145 150 155 160  
Ser Glu Tyr Asp Tyr Val Ile Tyr Ser Gln Thr Ala Glu Thr Ala His  
165 170 175

SEQLIST-20480.TXT

Ser Val Asn Val Asn Arg Phe Asn Val Ala Ile Thr Arg Ala Lys Lys  
 180 185 190  
 Gly Ile Leu Cys Val Met Ser Asn Met Gln Leu Phe Glu Ala Leu Gln  
 195 200 205  
 Phe Thr Thr Leu Thr Leu Asp Lys Val Pro Gln Ala Val Glu Thr Arg  
 210 215 220  
 Val Gln Cys Ser Thr Asn Leu Phe Lys Asp Cys Ser Lys Ser Tyr Ser  
 225 230 235 240  
 Gly Tyr His Pro Ala His Ala Pro Ser Phe Leu Ala Val Asp Asp Lys  
 245 250 255  
 Tyr Lys Ala Thr Gly Asp Leu Ala Val Cys Leu Gly Ile Gly Asp Ser  
 260 265 270  
 Ala Val Thr Tyr Ser Arg Leu Ile Ser Leu Met Gly Phe Lys Leu Asp  
 275 280 285  
 Val Thr Leu Asp Gly Tyr Cys Lys Leu Phe Ile Thr Lys Glu Glu Ala  
 290 295 300  
 Val Lys Arg Val Arg Ala Trp Val Gly Phe Asp Ala Glu Gly Ala His  
 305 310 315 320  
 Ala Thr Arg Asp Ser Ile Gly Thr Asn Phe Pro Leu Gln Leu Gly Phe  
 325 330 335  
 Ser Thr Gly Ile Asp Phe Val Val Glu Ala Thr Gly Leu Phe Ala Asp  
 340 345 350  
 Arg Asp Gly Tyr Ser Phe Lys Lys Ala Val Ala Lys Ala Pro Pro Gly  
 355 360 365  
 Glu Gln Phe Lys His Leu Ile Pro Leu Met Thr Arg Gly Gln Arg Trp  
 370 375 380  
 Asp Val Val Arg Pro Arg Ile Val Gln Met Phe Ala Asp His Leu Ile  
 385 390 395 400  
 Asp Leu Ser Asp Cys Val Val Leu Val Thr Trp Ala Ala Asn Phe Glu  
 405 410 415  
 Leu Thr Cys Leu Arg Tyr Phe Ala Lys Val Gly Arg Glu Ile Ser Cys  
 420 425 430  
 Asn Val Cys Thr Lys Arg Ala Thr Ala Tyr Asn Ser Arg Thr Gly Tyr  
 435 440 445  
 Tyr Gly Cys Trp Arg His Ser Val Thr Cys Asp Tyr Leu Tyr Asn Pro  
 450 455 460  
 Leu Ile Val Asp Ile Gln Gln Trp Gly Tyr Ile Gly Ser Leu Ser Ser  
 465 470 475 480  
 Asn His Asp Leu Tyr Cys Ser Val His Lys Gly Ala His Val Ala Ser  
 485 490 495  
 Ser Asp Ala Ile Met Thr Arg Cys Leu Ala Val Tyr Asp Cys Phe Cys  
 500 505 510

SEQLIST-20480.TXT

Asn Asn Ile Asn Trp Asn Val Glu Tyr Pro Ile Ile Ser Asn Glu Leu  
 515 520 525  
 Ser Ile Asn Thr Ser Cys Arg Val Leu Gln Arg Val Met Leu Lys Ala  
 530 535 540  
 Ala Met Leu Cys Asn Arg Tyr Thr Leu Cys Tyr Asp Ile Gly Asn Pro  
 545 550 555 560  
 Lys Ala Ile Ala Cys Val Lys Asp Phe Asp Phe Lys Phe Tyr Asp Ala  
 565 570 575  
 Gln Pro Ile Val Lys Ser Val Lys Thr Leu Leu Tyr Ser Phe Glu Ala  
 580 585 590  
 His Lys Asp Ser Phe Lys Asp Gly Leu Cys Met Phe Trp Asn Cys Asn  
 595 600 605  
 Val Asp Lys Tyr Pro Pro Asn Ala Val Val Cys Arg Phe Asp Thr Arg  
 610 615 620  
 Val Leu Asn Asn Leu Asn Leu Pro Gly Cys Asn Gly Gly Ser Leu Tyr  
 625 630 635 640  
 Val Asn Lys His Ala Phe His Thr Lys Pro Phe Ser Arg Ala Ala Phe  
 645 650 655  
 Glu His Leu Lys Pro Met Pro Phe Phe Tyr Tyr Ser Asp Thr Pro Cys  
 660 665 670  
 Val Tyr Met Asp Gly Met Asp Ala Lys Gln Val Asp Tyr Val Pro Leu  
 675 680 685  
 Lys Ser Ala Thr Cys Ile Thr Arg Cys Asn Leu Gly Gly Ala Val Cys  
 690 695 700  
 Leu Lys His Ala Glu Glu Tyr Arg Glu Tyr Leu Glu Ser Tyr Asn Thr  
 705 710 715 720  
 Ala Thr Thr Ala Gly Phe Thr Phe Trp Val Tyr Lys Thr Phe Asp Phe  
 725 730 735  
 Tyr Asn Leu Trp Asn Thr Phe Thr Lys Leu Gln Ser Leu Glu Asn Val  
 740 745 750  
 Val Tyr Asn Leu Val Lys Thr Gly His Tyr Thr Gly Gln Ala Gly Glu  
 755 760 765  
 Met Pro Cys Ala Ile Ile Asn Asp Lys Val Val Ala Lys Ile Asp Lys  
 770 775 780  
 Glu Asp Val Val Ile Phe Ile Asn Asn Thr Thr Tyr Pro Thr Asn Val  
 785 790 795 800  
 Ala Val Glu Leu Phe Ala Lys Arg Ser Ile Arg His His Pro Glu Leu  
 805 810 815  
 Lys Leu Phe Arg Asn Leu Asn Ile Asp Val Cys Trp Lys His Val Ile  
 820 825 830  
 Trp Asp Tyr Ala Arg Glu Ser Ile Phe Cys Ser Asn Thr Tyr Gly Val  
 835 840 845

SEQLIST-20480.TXT

Cys Met Tyr Thr Asp Leu Lys Phe Ile Asp Lys Leu Asn Val Leu Phe  
 850 855 860  
 Asp Gly Arg Asp Asn Gly Ala Leu Glu Ala Phe Lys Arg Ser Asn Asn  
 865 870 875 880  
 Gly Val Tyr Ile Ser Thr Thr Lys Val Lys Ser Leu Ser Met Ile Lys  
 885 890 895  
 Gly Pro Pro Arg Ala Glu Leu Asn Gly Val Val Val Asp Lys Val Gly  
 900 905 910  
 Asp Thr Asp Cys Val Phe Tyr Phe Ala Val Arg Lys Glu Gly Gln Asp  
 915 920 925  
 Val Ile  
 930  
 <210> 10069  
 <211> 911  
 <212> PRT  
 <213> Avian infectious bronchitis virus  
 <400> 10069  
 Leu Thr Asn Tyr Glu Leu Ser Phe Ile Asn Gly Lys Ile Asn Tyr Gln  
 1 5 10 15  
 Tyr Val Val Tyr Val Gly Asp Pro Ala Gln Leu Pro Ala Pro Arg Thr  
 20 25 30  
 Leu Leu Asn Gly Ser Leu Ser Pro Lys Asp Tyr Asn Val Val Thr Asn  
 35 40 45  
 Leu Met Val Cys Val Lys Pro Asp Ile Phe Leu Ala Lys Cys Tyr Arg  
 50 55 60  
 Cys Pro Lys Glu Ile Val Asp Thr Val Ser Thr Leu Val Tyr Asp Gly  
 65 70 75 80  
 Lys Phe Ile Ala Asn Asn Pro Glu Ser Arg Glu Cys Phe Lys Val Ile  
 85 90 95  
 Val Asn Asn Gly Asn Ser Asp Val Gly His Glu Ser Gly Ser Ala Tyr  
 100 105 110  
 Asn Thr Thr Gln Leu Glu Phe Val Lys Asp Phe Val Cys Arg Asn Lys  
 115 120 125  
 Gln Trp Arg Glu Ala Ile Phe Ile Ser Pro Tyr Asn Ala Met Asn Gln  
 130 135 140  
 Arg Ala Tyr Arg Met Leu Gly Leu Asn Val Gln Thr Val Asp Ser Ser  
 145 150 155 160  
 Gln Gly Ser Glu Tyr Asp Tyr Val Ile Phe Cys Val Thr Ala Asp Ser  
 165 170 175  
 Gln His Ala Leu Asn Ile Asn Arg Phe Asn Val Ala Leu Thr Arg Ala  
 180 185 190  
 Lys Arg Gly Ile Leu Val Val Met Arg Gln Arg Asp Glu Leu Tyr Ser  
 195 200 205

SEQLIST-20480.TXT

Ala Leu Lys Phe Thr Glu Leu Asp Ser Glu Thr Ser Leu Gln Gly Thr  
210 215 220  
Gly Leu Phe Lys Ile Cys Asn Lys Glu Phe Ser Gly Val His Pro Ala  
225 230 235 240  
Tyr Ala Val Thr Thr Lys Ala Leu Ala Ala Thr Tyr Lys Val Asn Asp  
245 250 255  
Glu Leu Ala Ala Leu Val Asn Val Glu Ala Gly Ser Glu Ile Thr Tyr  
260 265 270  
Lys His Leu Ile Ser Leu Leu Gly Phe Lys Met Ser Val Asn Val Glu  
275 280 285  
Gly Cys His Asn Met Phe Ile Thr Arg Asp Glu Ala Ile Arg Asn Val  
290 295 300  
Arg Gly Trp Val Gly Phe Asp Val Glu Ala Thr His Ala Cys Gly Thr  
305 310 315 320  
Asn Ile Gly Thr Asn Leu Pro Phe Gln Val Gly Phe Ser Thr Gly Ala  
325 330 335  
Asp Phe Val Val Thr Pro Glu Gly Leu Val Asp Thr Ser Ile Gly Asn  
340 345 350  
Asn Phe Glu Pro Val Asn Ser Lys Ala Pro Pro Gly Glu Gln Phe Asn  
355 360 365  
His Leu Arg Val Leu Phe Lys Ser Ala Lys Pro Trp His Val Ile Arg  
370 375 380  
Pro Arg Ile Val Gln Met Leu Ala Asp Asn Leu Cys Asn Val Ser Asp  
385 390 395 400  
Cys Val Val Phe Val Thr Trp Cys His Gly Leu Glu Leu Thr Thr Leu  
405 410 415  
Arg Tyr Phe Val Lys Ile Gly Lys Glu Gln Val Cys Ser Cys Gly Ser  
420 425 430  
Arg Ala Thr Thr Phe Asn Ser His Thr Gln Ala Tyr Ala Cys Trp Lys  
435 440 445  
His Cys Leu Gly Phe Asp Phe Val Tyr Asn Pro Leu Leu Val Asp Ile  
450 455 460  
Gln Gln Trp Gly Tyr Ser Gly Asn Leu Gln Phe Asn His Asp Leu His  
465 470 475 480  
Cys Asn Val His Gly His Ala His Val Ala Ser Val Asp Ala Ile Met  
485 490 495  
Thr Arg Cys Leu Ala Ile Asn Asn Ala Phe Cys Gln Asp Val Asn Trp  
500 505 510  
Asp Leu Thr Tyr Pro His Ile Ala Asn Glu Asp Glu Val Asn Ser Ser  
515 520 525  
Cys Arg Tyr Leu Gln Arg Met Tyr Leu Asn Ala Cys Val Asp Ala Leu  
530 535 540

SEQLIST-20480.TXT

Lys Val Asn Val Val Tyr Asp Ile Gly Asn Pro Lys Gly Ile Lys Cys  
 545 550 555 560  
 Val Arg Arg Gly Asp Val Asn Phe Arg Phe Tyr Asp Lys Asn Pro Ile  
 565 570 575  
 Val Arg Asn Val Lys Gln Phe Glu Tyr Asp Tyr Asn Gln His Lys Asp  
 580 585 590  
 Lys Phe Ala Asp Gly Leu Cys Met Phe Trp Asn Cys Asn Val Asp Cys  
 595 600 605  
 Tyr Pro Asp Asn Ser Leu Val Cys Arg Tyr Asp Thr Arg Asn Leu Ser  
 610 615 620  
 Val Phe Asn Leu Pro Gly Cys Asn Gly Gly Ser Leu Tyr Val Asn Lys  
 625 630 635 640  
 His Ala Phe Tyr Thr Pro Lys Phe Asp Arg Ile Ser Phe Arg Asn Leu  
 645 650 655  
 Lys Ala Met Pro Phe Phe Phe Tyr Asp Ser Ser Pro Cys Glu Thr Ile  
 660 665 670  
 Gln Val Asp Gly Val Ala Gln Asp Leu Val Ser Leu Ala Thr Lys Asp  
 675 680 685  
 Cys Ile Thr Lys Cys Asn Ile Gly Gly Ala Val Cys Lys Lys His Ala  
 690 695 700  
 Gln Met Tyr Ala Glu Phe Val Thr Ser Tyr Asn Ala Ala Val Thr Ala  
 705 710 715 720  
 Gly Phe Thr Phe Trp Val Thr Asn Lys Leu Asn Pro Tyr Asn Leu Trp  
 725 730 735  
 Lys Ser Phe Ser Ala Leu Gln Ser Ile Asp Asn Ile Ala Tyr Asn Met  
 740 745 750  
 Tyr Lys Gly Gly His Tyr Asp Ala Ile Ala Gly Glu Met Pro Thr Val  
 755 760 765  
 Ile Thr Gly Asp Lys Val Phe Val Ile Asp Gln Gly Val Glu Lys Ala  
 770 775 780  
 Val Phe Val Asn Gln Thr Thr Leu Pro Thr Ser Val Ala Phe Glu Leu  
 785 790 795 800  
 Tyr Ala Lys Arg Asn Ile Arg Thr Leu Pro Asn Asn Arg Ile Leu Lys  
 805 810 815  
 Gly Leu Gly Val Asp Val Thr Asn Gly Phe Val Ile Trp Asp Tyr Ala  
 820 825 830  
 Asn Gln Thr Pro Leu Tyr Arg Asn Thr Val Lys Val Cys Ala Tyr Thr  
 835 840 845  
 Asp Ile Glu Pro Asn Gly Leu Val Val Leu Tyr Asp Asp Arg Tyr Gly  
 850 855 860  
 Asp Tyr Gln Ser Phe Leu Ala Ala Asp Asn Ala Val Leu Val Ser Thr  
 865 870 875 880



SEQLIST-20480.TXT

Gln Cys Tyr Lys Arg Tyr Ser Tyr Val Glu Ile Pro Ser Asn Leu Leu  
885 890 895

Val Gln Asn Gly Met Pro Leu Lys Asp Gly Ala Asn Leu Tyr Val  
900 905 910

<210> 10070  
<211> 927  
<212> PRT  
<213> Murine hepatitis virus

<400> 10070  
Leu Thr Asn Tyr Glu Leu Ser Val Ile Asn Ser Arg Val Arg Ala Lys  
1 5 10 15

His Tyr Val Tyr Ile Gly Asp Pro Ala Gln Leu Pro Ala Pro Arg Val  
20 25 30

Leu Leu Asn Lys Gly Thr Leu Glu Pro Arg Tyr Phe Asn Ser Val Thr  
35 40 45

Lys Leu Met Cys Cys Leu Gly Pro Asp Ile Phe Leu Gly Thr Cys Tyr  
50 55 60

Arg Cys Pro Lys Glu Ile Val Asp Thr Val Ser Ala Leu Val Tyr Asn  
65 70 75 80

Asn Lys Leu Lys Ala Lys Asn Asp Asn Ser Ser Met Cys Phe Lys Val  
85 90 95

Tyr Tyr Lys Gly Gln Thr Thr His Glu Ser Ser Ser Ala Val Asn Met  
100 105 110

Gln Gln Ile His Leu Ile Ser Lys Phe Leu Lys Ala Asn Pro Ser Trp  
115 120 125

Ser Asn Ala Val Phe Ile Ser Pro Tyr Asn Ser Gln Asn Tyr Val Ala  
130 135 140

Lys Arg Val Leu Gly Leu Gln Thr Gln Thr Val Asp Ser Ala Gln Gly  
145 150 155 160

Ser Glu Tyr Asp Phe Val Ile Tyr Ser Gln Thr Ala Glu Thr Ala His  
165 170 175

Ser Val Asn Val Asn Arg Phe Asn Val Ala Ile Thr Arg Ala Lys Lys  
180 185 190

Gly Ile Leu Cys Val Met Ser Ser Met Gln Leu Phe Glu Ser Leu Asn  
195 200 205

Phe Thr Thr Leu Thr Leu Asp Lys Ile Asn Asn Pro Arg Leu Gln Cys  
210 215 220

Thr Thr Asn Leu Phe Lys Asp Cys Ser Arg Ser Tyr Val Gly Tyr His  
225 230 235 240

Pro Ala His Ala Pro Ser Phe Leu Ala Val Asp Asp Lys Tyr Lys Val  
245 250 255

Gly Gly Asp Leu Ala Val Cys Leu Asn Val Ala Asp Ser Ala Val Thr  
260 265 270

SEQLIST-20480.TXT

Tyr Ser Arg Leu Ile Ser Leu Met Gly Phe Lys Leu Asp Leu Thr Leu  
 275 280  
 Asp Gly Tyr Cys Lys Leu Phe Ile Thr Arg Asp Glu Ala Ile Lys Arg  
 290 295 300  
 Val Arg Ala Trp Val Gly Phe Asp Ala Glu Gly Ala His Ala Ile Arg  
 305 310 315 320  
 Asp Ser Ile Gly Thr Asn Phe Pro Leu Gln Leu Gly Phe Ser Thr Gly  
 325 330 335  
 Ile Asp Phe Val Val Glu Ala Thr Gly Met Phe Ala Glu Arg Asp Gly  
 340 345 350  
 Tyr Val Phe Lys Lys Ala Ala Ala Arg Ala Pro Pro Gly Glu Gln Phe  
 355 360 365  
 Lys His Leu Ile Pro Leu Met Ser Arg Gly Gln Lys Trp Asp Val Val  
 370 375 380  
 Arg Ile Arg Ile Val Gln Met Leu Ser Asp His Leu Val Asp Leu Ala  
 385 390 395 400  
 Asp Ser Val Val Leu Val Thr Trp Ala Ala Ser Phe Glu Leu Thr Cys  
 405 410 415  
 Leu Arg Tyr Phe Ala Lys Val Gly Arg Glu Val Val Cys Ser Val Cys  
 420 425 430  
 Thr Lys Arg Ala Thr Cys Phe Asn Ser Arg Thr Gly Tyr Tyr Gly Cys  
 435 440 445  
 Trp Arg His Ser Tyr Ser Cys Asp Tyr Leu Tyr Asn Pro Leu Ile Val  
 450 455 460  
 Asp Ile Gln Gln Trp Gly Tyr Thr Gly Ser Leu Thr Ser Asn His Asp  
 465 470 475 480  
 Pro Ile Cys Ser Val His Lys Gly Ala His Val Ala Ser Ser Asp Ala  
 485 490 495  
 Ile Met Thr Arg Cys Leu Ala Val His Asp Cys Phe Cys Lys Ser Val  
 500 505 510  
 Asn Trp Asn Leu Glu Tyr Pro Ile Ile Ser Asn Glu Val Ser Val Asn  
 515 520 525  
 Thr Ser Cys Arg Leu Leu Gln Arg Val Met Phe Arg Ala Ala Met Leu  
 530 535 540  
 Cys Asn Arg Tyr Asp Val Cys Tyr Asp Ile Gly Asn Pro Lys Gly Leu  
 545 550 555 560  
 Ala Cys Val Lys Gly Tyr Asp Phe Lys Phe Tyr Asp Ala Ser Pro Val  
 565 570 575  
 Val Lys Ser Val Lys Gln Phe Val Tyr Lys Tyr Glu Ala His Lys Asp  
 580 585 590  
 Gln Phe Leu Asp Gly Leu Cys Met Phe Trp Asn Cys Asn Val Asp Lys  
 595 600 605

SEQLIST-20480.TXT

Tyr Pro Ala Asn Ala Val Val Cys Arg Phe Asp Thr Arg Val Leu Asn  
 610 615 620  
 Lys Leu Asn Leu Pro Gly Cys Asn Gly Gly Ser Leu Tyr Val Asn Lys  
 625 630 635 640  
 His Ala Phe His Thr Ser Pro Phe Thr Arg Ala Ala Phe Glu Asn Leu  
 645 650 655  
 Lys Pro Met Pro Phe Phe Tyr Tyr Ser Asp Thr Pro Cys Val Tyr Met  
 660 665 670  
 Glu Gly Met Glu Ser Lys Gln Val Asp Tyr Val Pro Leu Arg Ser Ala  
 675 680 685  
 Thr Cys Ile Thr Arg Cys Asn Leu Gly Gly Ala Val Cys Leu Lys His  
 690 695 700  
 Ala Glu Glu Tyr Arg Glu Tyr Leu Glu Ser Tyr Asn Thr Ala Thr Thr  
 705 710 715 720  
 Ala Gly Phe Thr Phe Trp Val Tyr Lys Thr Phe Asp Phe Tyr Asn Leu  
 725 730 735  
 Trp Asn Thr Phe Thr Arg Leu Gln Ser Leu Glu Asn Val Val Tyr Asn  
 740 745 750  
 Leu Val Asn Ala Gly His Phe Asp Gly Arg Ala Gly Glu Leu Pro Cys  
 755 760 765  
 Ala Val Ile Gly Glu Lys Val Ile Ala Lys Ile Gln Asn Glu Asp Val  
 770 775 780  
 Val Val Phe Lys Asn Asn Thr Pro Phe Pro Thr Asn Val Ala Val Glu  
 785 790 795 800  
 Leu Phe Ala Lys Arg Ser Ile Arg Pro His Pro Glu Leu Lys Leu Phe  
 805 810 815  
 Arg Asn Leu Asn Ile Asp Val Cys Trp Ser His Val Leu Trp Asp Tyr  
 820 825 830  
 Ala Lys Asp Ser Val Phe Cys Ser Ser Thr Tyr Lys Val Cys Lys Tyr  
 835 840 845  
 Thr Asp Leu Gln Cys Ile Glu Ser Leu Asn Val Leu Phe Asp Gly Arg  
 850 855 860  
 Asp Asn Gly Ala Leu Glu Ala Phe Lys Lys Cys Arg Asn Gly Val Tyr  
 865 870 875 880  
 Ile Asn Thr Thr Lys Ile Lys Ser Leu Ser Met Ile Lys Gly Pro Gln  
 885 890 895  
 Arg Ala Asp Leu Asn Gly Val Val Val Glu Lys Val Gly Asp Ser Asp  
 900 905 910  
 Val Glu Phe Trp Phe Ala Val Arg Lys Asp Gly Asp Asp Val Ile  
 915 920 925  
 <210> 10071  
 <211> 936

SEQLIST-20480.TXT

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Consensus sequence

<220>  
<221> misc\_feature  
<222> 1..936  
<223> Xaa is any amino acid

<400> 10071

```

Leu Thr Asn Tyr Glu Leu Ser Val Ile Asn Ala Arg Ile Xaa Ala Lys
1      5      10      15
His Tyr Val Tyr Ile Gly Asp Pro Ala Gln Leu Pro Ala Pro Arg Val
20     25     30
Leu Leu Asn Lys Gly Thr Leu Glu Pro Lys Tyr Phe Asn Ser Val Thr
35     40     45
Lys Leu Met Cys Cys Leu Gly Pro Asp Ile Phe Leu Gly Thr Cys Tyr
50     55     60
Arg Cys Pro Lys Glu Ile Val Asp Thr Val Ser Ala Leu Val Tyr Asp
65     70     75     80
Asn Lys Leu Lys Ala Lys Asn Asp Xaa Ser Ser Leu Cys Phe Lys Val
85     90     95
Tyr Tyr Lys Gly Xaa Xaa Xaa Xaa Thr Thr His Glu Ser Ser Ser Ala
100    105    110
Val Asn Met Gln Gln Ile His Leu Ile Xaa Lys Phe Leu Lys Ala Asn
115    120    125
Pro Xaa Trp Xaa Xaa Ala Val Phe Ile Ser Pro Tyr Asn Ser Gln Asn
130    135    140
Phe Xaa Ala Lys Arg Val Leu Gly Leu Gln Thr Gln Thr Val Asp Ser
145    150    155    160
Ala Gln Gly Ser Glu Tyr Asp Tyr Val Ile Tyr Ser Gln Thr Ala Glu
165    170    175
Thr Ala His Ser Val Asn Val Asn Arg Phe Asn Val Ala Ile Thr Arg
180    185    190
Ala Lys Lys Gly Ile Leu Cys Val Met Ser Asn Met Gln Leu Phe Glu
195    200    205
Ser Leu Asn Phe Thr Thr Leu Thr Leu Asp Lys Ile Xaa Xaa Xaa Xaa
210    215    220
Xaa Xaa Arg Leu Gln Cys Ser Thr Asn Leu Phe Lys Asp Cys Ser Lys
225    230    235    240
Ser Tyr Ser Gly Tyr His Pro Ala His Ala Pro Ser Phe Leu Ala Val
245    250    255
Asp Asp Lys Tyr Lys Val Xaa Gly Asp Leu Ala Val Cys Leu Asn Val
260    265    270

```

SEQLIST-20480.TXT

Ala Asp Xaa Ser Ala Val Thr Tyr Ser Arg Leu Ile Ser Leu Met Gly  
275 280 285

Phe Lys Leu Asp Val Thr Leu Asp Gly Tyr Cys Asn Leu Phe Ile Thr  
290 295 300

Arg Asp Glu Ala Ile Lys Arg Val Arg Ala Trp Val Gly Phe Asp Val  
305 310 315 320

Glu Gly Ala His Ala Thr Arg Asp Ser Ile Gly Thr Asn Leu Pro Leu  
325 330 335

Gln Leu Gly Phe Ser Thr Gly Ile Asp Phe Val Val Glu Pro Thr Gly  
340 345 350

Leu Val Asp Thr Arg Asp Gly Tyr Xaa Phe Lys Lys Val Asn Ala Lys  
355 360 365

Ala Pro Pro Gly Glu Gln Phe Lys His Leu Ile Pro Leu Met Ser Arg  
370 375 380

Gly Gln Pro Trp Asp Val Val Arg Pro Arg Ile Val Gln Met Leu Ala  
385 390 395 400

Asp His Leu Xaa Asp Leu Ser Asp Cys Val Val Leu Val Thr Trp Ala  
405 410 415

His Gly Phe Glu Leu Thr Cys Leu Arg Tyr Phe Val Lys Ile Gly Arg  
420 425 430

Glu Ile Ser Cys Cys Val Cys Thr Lys Arg Ala Thr Cys Phe Asn Ser  
435 440 445

Arg Thr Gly Tyr Tyr Ala Cys Trp Arg His Ser Val Gly Phe Asp Tyr  
450 455 460

Leu Tyr Asn Pro Leu Ile Val Asp Ile Gln Gln Trp Gly Tyr Ser Gly  
465 470 475 480

Ser Leu Ser Ser Asn His Asp Leu His Cys Ser Val His Lys Gly Ala  
485 490 495

His Val Ala Ser Ser Asp Ala Ile Met Thr Arg Cys Leu Ala Val His  
500 505 510

Asp Cys Phe Cys Asn Xaa Val Asn Trp Asn Leu Glu Tyr Pro Ile Ile  
515 520 525

Ser Asn Glu Leu Ser Val Asn Thr Ser Cys Arg Leu Leu Gln Arg Val  
530 535 540

Met Leu Lys Ala Ala Met Leu Cys Asn Arg Tyr Xaa Val Cys Tyr Asp  
545 550 555 560

Ile Gly Asn Pro Lys Gly Ile Ala Cys Val Lys Xaa Xaa Xaa Phe Asp  
565 570 575

Phe Lys Phe Tyr Asp Ala Asn Pro Ile Val Lys Ser Val Lys Gln Phe  
580 585 590

Leu Tyr Xaa Tyr Glu Ala His Lys Asp Xaa Phe Xaa Asp Gly Leu Cys  
595 600 605

SEQLIST-20480.TXT

Met Phe Trp Asn Cys Asn Val Asp Lys Tyr Pro Xaa Asn Ala Val Val  
610 615 620

Cys Arg Phe Asp Thr Arg Val Leu Asn Xaa Leu Asn Leu Pro Gly Cys  
625 630 635 640

Asn Gly Gly Ser Leu Tyr Val Asn Lys His Ala Phe His Thr Xaa Pro  
645 650 655

Phe Ser Arg Ala Ala Phe Glu Asn Leu Lys Pro Met Pro Phe Phe Tyr  
660 665 670

Tyr Ser Asp Thr Pro Cys Val Tyr Met Asp Gly Met Asp Ala Lys Gln  
675 680 685

Val Asp Tyr Val Pro Leu Lys Ser Ala Thr Cys Ile Thr Arg Cys Asn  
690 695 700

Leu Gly Gly Ala Val Cys Leu Lys His Ala Glu Glu Tyr Arg Glu Tyr  
705 710 715 720

Leu Glu Ser Tyr Asn Thr Ala Thr Thr Ala Gly Phe Thr Phe Trp Val  
725 730 735

Tyr Lys Thr Phe Asp Phe Tyr Asn Leu Trp Asn Thr Phe Thr Lys Leu  
740 745 750

Gln Ser Leu Glu Asn Val Val Tyr Asn Leu Val Lys Ala Gly His Tyr  
755 760 765

Asp Gly Xaa Ala Gly Glu Met Pro Cys Ala Ile Ile Gly Asp Lys Val  
770 775 780

Ile Ala Lys Ile Gln Xaa Glu Asp Val Val Val Phe Ile Asn Asn Thr  
785 790 795 800

Thr Phe Pro Thr Asn Val Ala Val Glu Leu Phe Ala Lys Arg Ser Ile  
805 810 815

Arg Xaa His Pro Glu Leu Lys Leu Phe Arg Asn Leu Asn Ile Asp Val  
820 825 830

Cys Trp Xaa His Val Ile Trp Asp Tyr Ala Lys Asp Ser Ile Phe Cys  
835 840 845

Ser Asn Thr Tyr Lys Val Cys Xaa Tyr Thr Asp Leu Xaa Xaa Ile Asp  
850 855 860

Xaa Leu Asn Val Leu Phe Asp Gly Arg Asp Asn Gly Ala Leu Glu Ala  
865 870 875 880

Phe Lys Lys Ala Xaa Asn Gly Val Tyr Ile Ser Thr Thr Lys Ile Lys  
885 890 895

Ser Leu Ser Met Ile Lys Gly Pro Xaa Arg Ala Asp Leu Asn Gly Val  
900 905 910

Val Val Asp Lys Val Gly Asp Ser Asp Xaa Xaa Phe Trp Phe Ala Val  
915 920 925

Arg Lys Asp Gly Asn Asp Val Ile  
930 935

SEQLIST-20480.TXT

<210> 10072  
 <211> 229  
 <212> PRT  
 <213> SARS coronavirus

<220>  
 <221> misc\_feature  
 <222> 206  
 <223> Xaa is any amino acid

<400> 10072  
 Lys Gly His Asp Leu Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met  
 1 5 10 15  
 Asn Tyr Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu  
 20 25 30  
 Ala Ile Arg His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys  
 35 40 45  
 His Ala Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly  
 50 55 60  
 Phe Ser Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp  
 65 70 75 80  
 Thr Glu Asn Asn Thr Lys Phe Thr Arg Val Asn Ala Gln Thr Ser Thr  
 85 90 95  
 Ser Glu Gln Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro  
 100 105 110  
 Trp Asn Val Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu  
 115 120 125  
 Lys Gly Leu Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe  
 130 135 140  
 Glu Leu Thr Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr  
 145 150 155 160  
 Cys Cys Leu Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp  
 165 170 175  
 Thr Tyr Ala Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn  
 180 185 190  
 Pro Phe Met Ile Asp Val Gln Gln Trp Gly Leu Tyr Gly Xaa Pro Phe  
 195 200 205  
 Arg Val Thr Met Thr Asn Ile Ala Arg Tyr Met Glu Met His Met Trp  
 210 215 220  
 Ala Ser Cys Asp Ala  
 225

<210> 10073  
 <211> 522  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Hybrid AIBV/SARS coronavirus sequence

SEQLIST-20480.TXT

```

<400> 10073
Gly Thr Gly Leu Phe Lys Ile Cys Asn Lys Glu Phe Ser Gly Val His
1 5 10 15
Pro Ala Tyr Ala Val Thr Thr Lys Ala Leu Ala Ala Thr Tyr Lys Val
20 25 30
Asn Asp Glu Leu Ala Ala Leu Val Asn Val Glu Ala Gly Lys Gly His
35 40 45
Asp Leu Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met Asn Tyr Gln
50 55 60
Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu Ala Ile Arg
65 70 75 80
His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys His Ala Thr
85 90 95
Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly Phe Ser Thr
100 105 110
Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp Thr Glu Asn
115 120 125
Asn Thr Lys Phe Thr Arg Val Asn Ala Gln Thr Ser Thr Ser Glu Gln
130 135 140
Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro Trp Asn Val
145 150 155 160
Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu Lys Gly Leu
165 170 175
Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe Glu Leu Thr
180 185 190
Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr Cys Cys Leu
195 200 205
Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp Thr Tyr Ala
210 215 220
Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn Pro Phe Met
225 230 235 240
Ile Asp Val Gln Gln Trp Gly Leu Tyr Gly Asn Leu Gln Phe Asn His
245 250 255
Asp Leu His Cys Asn Val His Gly His Ala His Val Ala Ser Val Asp
260 265 270
Ala Ile Met Thr Arg Cys Leu Ala Ile Asn Asn Ala Phe Cys Gln Asp
275 280 285
Val Asn Trp Asp Leu Thr Tyr Pro His Ile Ala Asn Glu Asp Glu Val
290 295 300
Asn Ser Ser Cys Arg Tyr Leu Gln Arg Met Tyr Leu Asn Ala Cys Val
305 310 315 320
Asp Ala Leu Lys Val Asn Val Val Tyr Asp Ile Gly Asn Pro Lys Gly

```



SEQLIST-20480.TXT

325

330

335

Ile Lys Cys Val Arg Arg Gly Asp Val Asn Phe Arg Phe Tyr Asp Lys  
 340 345 350  
 Asn Pro Ile Val Arg Asn Val Lys Gln Phe Glu Tyr Asp Tyr Asn Gln  
 355 360 365  
 His Lys Asp Lys Phe Ala Asp Gly Leu Cys Met Phe Trp Asn Cys Asn  
 370 375 380  
 Val Asp Cys Tyr Pro Asp Asn Ser Leu Val Cys Arg Tyr Asp Thr Arg  
 385 390 395 400  
 Asn Leu Ser Val Phe Asn Leu Pro Gly Cys Asn Gly Gly Ser Leu Tyr  
 405 410 415  
 Val Asn Lys His Ala Phe Tyr Thr Pro Lys Phe Asp Arg Ile Ser Phe  
 420 425 430  
 Arg Asn Leu Lys Ala Met Pro Phe Phe Phe Tyr Asp Ser Ser Pro Cys  
 435 440 445  
 Glu Thr Ile Gln Val Asp Gly Val Ala Gln Asp Leu Val Ser Leu Ala  
 450 455 460  
 Thr Lys Asp Cys Ile Thr Lys Cys Asn Ile Gly Gly Ala Val Cys Lys  
 465 470 475 480  
 Lys His Ala Gln Met Tyr Ala Glu Phe Val Thr Ser Tyr Asn Ala Ala  
 485 490 495  
 Val Thr Ala Gly Phe Thr Phe Trp Val Thr Asn Lys Leu Asn Pro Tyr  
 500 505 510  
 Asn Leu Trp Lys Ser Phe Ser Ala Leu Gln  
 515 520

<210> 10074

<211> 521

<212> PRT

<213> Hybrid BCoV/SARS coronavirus sequence

<400> 10074

Cys Ser Thr Asn Leu Phe Lys Asp Cys Ser Lys Ser Tyr Ser Gly Tyr  
 1 5 10 15  
 His Pro Ala His Ala Pro Ser Phe Leu Ala Val Asp Asp Lys Tyr Lys  
 20 25 30  
 Ala Thr Gly Asp Leu Ala Val Cys Leu Gly Ile Gly Asp Lys Gly His  
 35 40 45  
 Asp Leu Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met Asn Tyr Gln  
 50 55 60  
 Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu Ala Ile Arg  
 65 70 75 80  
 His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys His Ala Thr  
 85 90 95  
 Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly Phe Ser Thr

SEQLIST-20480.TXT

100	105	110
Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp Thr Glu Asn		
115	120	125
Asn Thr Lys Phe Thr Arg Val Asn Ala Gln Thr Ser Thr Ser Glu Gln		
130	135	140
Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro Trp Asn Val		
145	150	155
Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu Lys Gly Leu		
	165	170
Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe Glu Leu Thr		
	180	185
Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr Cys Cys Leu		
	195	200
Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp Thr Tyr Ala		
	210	215
Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn Pro Phe Met		
	225	230
Ile Asp Val Gln Gln Trp Gly Leu Tyr Gly Ser Leu Ser Ser Asn His		
	245	250
Asp Leu Tyr Cys Ser Val His Lys Gly Ala His Val Ala Ser Ser Asp		
	260	265
Ala Ile Met Thr Arg Cys Leu Ala Val Tyr Asp Cys Phe Cys Asn Asn		
	275	280
Ile Asn Trp Asn Val Glu Tyr Pro Ile Ile Ser Asn Glu Leu Ser Ile		
	290	295
Asn Thr Ser Cys Arg Val Leu Gln Arg Val Met Leu Lys Ala Ala Met		
	305	310
Leu Cys Asn Arg Tyr Thr Leu Cys Tyr Asp Ile Gly Asn Pro Lys Ala		
	325	330
Ile Ala Cys Val Lys Asp Phe Asp Phe Lys Phe Tyr Asp Ala Gln Pro		
	340	345
Ile Val Lys Ser Val Lys Thr Leu Leu Tyr Ser Phe Glu Ala His Lys		
	355	360
Asp Ser Phe Lys Asp Gly Leu Cys Met Phe Trp Asn Cys Asn Val Asp		
	370	375
Lys Tyr Pro Pro Asn Ala Val Val Cys Arg Phe Asp Thr Arg Val Leu		
	385	390
Asn Asn Leu Asn Leu Pro Gly Cys Asn Gly Gly Ser Leu Tyr Val Asn		
	405	410
Lys His Ala Phe His Thr Lys Pro Phe Ser Arg Ala Ala Phe Glu His		
	420	425
Leu Lys Pro Met Pro Phe Phe Tyr Tyr Ser Asp Thr Pro Cys Val Tyr		
	430	

SEQLIST-20480.TXT

```

435                               440      445
Met Asp Gly Met Asp Ala Lys Gln Val Asp Tyr Val Pro Leu Lys Ser
450                               455      460
Ala Thr Cys Ile Thr Arg Cys Asn Leu Gly Gly Ala Val Cys Leu Lys
465                               470      475
His Ala Glu Glu Tyr Arg Glu Tyr Leu Glu Ser Tyr Asn Thr Ala Thr
485                               490      495
Thr Ala Gly Phe Thr Phe Trp Val Tyr Lys Thr Phe Asp Phe Tyr Asn
500                               505      510
Leu Trp Asn Thr Phe Thr Lys Leu Gln
515                               520

<210> 10075
<211> 521
<212> PRT
<213> Hybrid MHV/SARS coronavirus sequence

<400> 10075
Cys Thr Thr Asn Leu Phe Lys Asp Cys Ser Arg Ser Tyr Val Gly Tyr
1      5      10      15
His Pro Ala His Ala Pro Ser Phe Leu Ala Val Asp Asp Lys Tyr Lys
20     25     30
Val Gly Gly Asp Leu Ala Val Cys Leu Asn Val Ala Asp Lys Gly His
35     40     45
Asp Leu Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met Asn Tyr Gln
50     55     60
Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu Ala Ile Arg
65     70     75     80
His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys His Ala Thr
85     90     95
Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly Phe Ser Thr
100    105    110
Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp Thr Glu Asn
115    120    125
Asn Thr Lys Phe Thr Arg Val Asn Ala Gln Thr Ser Thr Ser Glu Gln
130    135    140
Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro Trp Asn Val
145    150    155    160
Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu Lys Gly Leu
165    170    175
Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe Glu Leu Thr
180    185    190
Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr Cys Cys Leu
195    200    205
Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp Thr Tyr Ala

```

SEQLIST-20480.TXT  
220

210

215

Cys 225	Trp	Asn	His	Ser	Val 230	Gly	Phe	Asp	Tyr	Val 235	Tyr	Asn	Pro	Phe	Met 240
Ile	Asp	Val	Gln	Gln 245	Trp	Gly	Leu	Tyr	Gly 250	Ser	Leu	Thr	Ser	Asn 255	His
Asp	Pro	Ile	Cys 260	Ser	Val	His	Lys	Gly 265	Ala	His	Val	Ala	Ser 270	Ser	Asp
Ala	Ile	Met 275	Thr	Arg	Cys	Leu	Ala 280	Val	His	Asp	Cys	Phe 285	Cys	Lys	Ser
Val	Asn 290	Trp	Asn	Leu	Glu	Tyr 295	Pro	Ile	Ile	Ser	Asn 300	Glu	Val	Ser	Val
Asn 305	Thr	Ser	Cys	Arg	Leu 310	Leu	Gln	Arg	Val	Met 315	Phe	Arg	Ala	Ala	Met 320
Leu	Cys	Asn	Arg	Tyr 325	Asp	Val	Cys	Tyr	Asp 330	Ile	Gly	Asn	Pro	Lys 335	Gly
Leu	Ala	Cys	Val 340	Lys	Gly	Tyr	Asp	Phe 345	Lys	Phe	Tyr	Asp	Ala 350	Ser	Pro
Val	Val	Lys 355	Ser	Val	Lys	Gln	Phe 360	Val	Tyr	Lys	Tyr	Glu 365	Ala	His	Lys
Asp	Gln 370	Phe	Leu	Asp	Gly	Leu 375	Cys	Met	Phe	Trp	Asn 380	Cys	Asn	Val	Asp
Lys 385	Tyr	Pro	Ala	Asn	Ala 390	Val	Val	Cys	Arg	Phe 395	Asp	Thr	Arg	Val	Leu 400
Asn	Lys	Leu	Asn	Leu 405	Pro	Gly	Cys	Asn	Gly 410	Gly	Ser	Leu	Tyr	Val 415	Asn
Lys	His	Ala	Phe 420	His	Thr	Ser	Pro	Phe 425	Thr	Arg	Ala	Ala	Phe 430	Glu	Asn
Leu	Lys	Pro 435	Met	Pro	Phe	Phe	Tyr 440	Tyr	Ser	Asp	Thr	Pro 445	Cys	Val	Tyr
Met	Glu 450	Gly	Met	Glu	Ser	Lys 455	Gln	Val	Asp	Tyr	Val 460	Pro	Leu	Arg	Ser
Ala 465	Thr	Cys	Ile	Thr	Arg 470	Cys	Asn	Leu	Gly	Gly 475	Ala	Val	Cys	Leu	Lys 480
His	Ala	Glu	Glu	Tyr 485	Arg	Glu	Tyr	Leu	Glu 490	Ser	Tyr	Asn	Thr	Ala 495	Thr
Thr	Ala	Gly	Phe 500	Thr	Phe	Trp	Val	Tyr 505	Lys	Thr	Phe	Asp	Phe 510	Tyr	Asn
Leu	Trp	Asn 515	Thr	Phe	Thr	Arg	Leu 520	Gln							

<210> 10076  
 <211> 520  
 <212> PRT  
 <213> Hybrid consensus/SARS coronavirus sequence

SEQLIST-20480.TXT

<400> 10076  
 Cys Ser Thr Asn Leu Phe Lys Asp Cys Ser Lys Ser Tyr Ser Gly Tyr  
 1 5 10 15  
 His Pro Ala His Ala Pro Ser Phe Leu Ala Val Asp Asp Lys Tyr Lys  
 20 25 30  
 Val Gly Gly Asp Leu Ala Val Cys Leu Asn Val Ala Asp Lys Gly His  
 35 40 45  
 Asp Leu Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met Asn Tyr Gln  
 50 55 60  
 Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu Ala Ile Arg  
 65 70 75 80  
 His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys His Ala Thr  
 85 90 95  
 Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly Phe Ser Thr  
 100 105 110  
 Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp Thr Glu Asn  
 115 120 125  
 Asn Thr Lys Phe Thr Arg Val Asn Ala Gln Thr Ser Thr Ser Glu Gln  
 130 135 140  
 Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro Trp Asn Val  
 145 150 155 160  
 Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu Lys Gly Leu  
 165 170 175  
 Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe Glu Leu Thr  
 180 185 190  
 Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr Cys Cys Leu  
 195 200 205  
 Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp Thr Tyr Ala  
 210 215 220  
 Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn Pro Phe Met  
 225 230 235 240  
 Ile Asp Val Gln Gln Trp Gly Leu Tyr Gly Ser Leu Ser Ser Asn His  
 245 250 255  
 Asp Leu His Cys Ser Val His Lys Gly Ala His Val Ala Ser Ser Asp  
 260 265 270  
 Ala Ile Met Thr Arg Cys Leu Ala Val His Asp Cys Phe Cys Asn Ser  
 275 280 285  
 Val Asn Trp Asn Leu Glu Tyr Pro Ile Ile Ser Asn Glu Leu Ser Val  
 290 295 300  
 Asn Thr Ser Cys Arg Leu Leu Gln Arg Val Met Leu Lys Ala Ala Met  
 305 310 315 320  
 Leu Cys Asn Arg Tyr Thr Val Cys Tyr Asp Ile Gly Asn Pro Lys Gly

SEQLIST-20480.TXT

325

330

335

Ile Ala Cys Val<sub>340</sub> Lys Asp Phe Asp Phe<sub>345</sub> Lys Phe Tyr Asp Ala<sub>350</sub> Asn Pro  
 Ile Val Lys<sub>355</sub> Ser Val Lys Gln Phe<sub>360</sub> Leu Tyr Ser Tyr Glu<sub>365</sub> Ala His Lys  
 Asp Ser<sub>370</sub> Phe Lys Asp Gly<sub>375</sub> Leu Cys Met Phe Trp Asn<sub>380</sub> Cys Asn Val Asp  
 Lys Tyr Pro Ala Asn Ala<sub>390</sub> Val Val Cys Arg Phe<sub>395</sub> Asp Thr Arg Val Leu<sub>400</sub>  
 Asn Leu Asn Leu Pro<sub>405</sub> Gly Cys Asn Gly<sub>410</sub> Gly Ser Leu Tyr Val Asn<sub>415</sub> Lys  
 His Ala Phe His<sub>420</sub> Thr Lys Pro Phe Ser<sub>425</sub> Arg Ala Ala Phe Glu<sub>430</sub> Asn Leu  
 Lys Pro Met<sub>435</sub> Pro Phe Phe Tyr Tyr<sub>440</sub> Ser Asp Thr Pro Cys<sub>445</sub> Val Tyr Met  
 Asp Gly<sub>450</sub> Met Asp Ala Lys Gln<sub>455</sub> Val Asp Tyr Val Pro<sub>460</sub> Leu Lys Ser Ala  
 Thr Cys Ile Thr Arg Cys<sub>470</sub> Asn Leu Gly Gly Ala<sub>475</sub> Val Cys Leu Lys His<sub>480</sub>  
 Ala Glu Glu Tyr Arg<sub>485</sub> Glu Tyr Leu Glu Ser<sub>490</sub> Tyr Asn Thr Ala Thr Thr<sub>495</sub>  
 Ala Gly Phe Thr<sub>500</sub> Phe Trp Val Tyr Lys<sub>505</sub> Thr Phe Asp Phe Tyr<sub>510</sub> Asn Leu  
 Trp Asn Thr<sub>515</sub> Phe Thr Lys Leu Gln<sub>520</sub>

<210> 10077  
 <211> 524  
 <212> PRT  
 <213> Consensus hybrid sequence

<220>  
 <221> misc\_feature  
 <222> 1..524  
 <223> Xaa is any amino acid

<400> 10077  
 Cys Ser Thr Asn<sub>5</sub> Leu Phe Lys Asp Cys<sub>10</sub> Ser Lys Ser Tyr Ser Gly Tyr<sub>15</sub>  
 His Pro Ala His<sub>20</sub> Ala Pro Ser Phe<sub>25</sub> Leu Ala Val Asp Asp Lys Tyr Lys<sub>30</sub>  
 Val Gly Gly<sub>35</sub> Asp Leu Ala Val Cys<sub>40</sub> Leu Asn Val Ala<sub>45</sub> Asp Xaa Lys Gly  
 His Asp<sub>50</sub> Leu Arg Arg Leu Ile<sub>55</sub> Ser Met Met Gly Phe<sub>60</sub> Lys Met Asn Tyr  
 Gln Val Asn Gly Tyr Pro<sub>70</sub> Asn Met Phe Ile Thr<sub>75</sub> Arg Glu Glu Ala Ile<sub>80</sub>

SEQLIST-20480.TXT

Arg His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys His Ala  
85 90 95

Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly Phe Ser  
100 105 110

Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp Thr Glu  
115 120 125

Asn Asn Thr Lys Phe Thr Arg Val Asn Ala Gln Thr Ser Thr Ser Glu  
130 135 140

Gln Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro Trp Asn  
145 150 155 160

Val Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu Lys Gly  
165 170 175

Leu Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe Glu Leu  
180 185 190

Thr Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr Cys Cys  
195 200 205

Leu Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp Thr Tyr  
210 215 220

Ala Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn Pro Phe  
225 230 235 240

Met Ile Asp Val Gln Gln Trp Gly Leu Tyr Gly Ser Leu Ser Ser Asn  
245 250 255

His Asp Leu His Cys Ser Val His Lys Gly Ala His Val Ala Ser Ser  
260 265 270

Asp Ala Ile Met Thr Arg Cys Leu Ala Val His Asp Cys Phe Cys Asn  
275 280 285

Ser Val Asn Trp Asn Leu Glu Tyr Pro Ile Ile Ser Asn Glu Leu Ser  
290 295 300

Val Asn Thr Ser Cys Arg Leu Leu Gln Arg Val Met Leu Lys Ala Ala  
305 310 315 320

Met Leu Cys Asn Arg Tyr Thr Val Cys Tyr Asp Ile Gly Asn Pro Lys  
325 330 335

Gly Ile Ala Cys Val Lys Xaa Xaa Asp Phe Asp Phe Lys Phe Tyr Asp  
340 345 350

Ala Asn Pro Ile Val Lys Ser Val Lys Gln Phe Leu Tyr Ser Tyr Glu  
355 360 365

Ala His Lys Asp Ser Phe Lys Asp Gly Leu Cys Met Phe Trp Asn Cys  
370 375 380

Asn Val Asp Lys Tyr Pro Ala Asn Ala Val Val Cys Arg Phe Asp Thr  
385 390 395 400

Arg Val Leu Asn Xaa Leu Asn Leu Pro Gly Cys Asn Gly Gly Ser Leu  
405 410 415

SEQLIST-20480.TXT

Tyr Val Asn Lys His Ala Phe His Thr Lys Pro Phe Ser Arg Ala Ala  
420 425 430  
Phe Glu Asn Leu Lys Pro Met Pro Phe Phe Tyr Tyr Ser Asp Thr Pro  
435 440 445  
Cys Val Tyr Met Asp Gly Met Asp Ala Lys Gln Val Asp Tyr Val Pro  
450 455 460  
Leu Lys Ser Ala Thr Cys Ile Thr Arg Cys Asn Leu Gly Gly Ala Val  
465 470 475 480  
Cys Leu Lys His Ala Glu Glu Tyr Arg Glu Tyr Leu Glu Ser Tyr Asn  
485 490 495  
Thr Ala Thr Thr Ala Gly Phe Thr Phe Trp Val Tyr Lys Thr Phe Asp  
500 505 510  
Phe Tyr Asn Leu Trp Asn Thr Phe Thr Lys Leu Gln  
515 520

<210> 10078  
<211> 54  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10078  
Val Ser Thr His Ser Ile Ser Ser Cys Met Thr Ala Leu Tyr Ile Lys  
1 5 10 15  
Ala Asn Pro Arg Thr Asn Val Thr Asn Ser Phe Phe Ala Gly Asp Lys  
20 25 30  
His Ile Arg Val Thr Ile Asp Leu Val Ile His Phe Glu Thr His His  
35 40 45  
Arg Asp Glu Ser Thr Val  
50

<210> 10079  
<211> 6  
<212> PRT  
<213> SARS coronavirus

<400> 10079  
Pro Lys Asp Met Thr Tyr  
1 5

<210> 10080  
<211> 336  
<212> DNA  
<213> SARS coronavirus

<400> 10080  
tagtcaaaac ccacagaatg attccagcag gcataagtat ctgatgaagt agaaaagcaa 60  
gttgacggtt tgtcacacag acaacacggt ctttcagggtc caatcttgac aaagtacttc 120  
attgatgtaa gctcaaagcc atgcgcccac aggacgaaca cgactctgtc tgacaatcct 180  
ttcagtgtat cactgagcat ttgtactatc ttaatacgca ctacattcca gggcaagcct 240  
ttatacatga gtggtataag atgtttaaac tgctcactgg tggagggttg tgcattaact 300



ctggtgaatt ttgtgttatt ttcagtgatca acataa

<210> 10081  
 <211> 88  
 <212> PRT  
 <213> SARS coronavirus

<400> 10081  
 Met Ser His Arg Gln His Val Leu Ser Gly Pro Ile Leu Thr Lys Tyr  
 1 5 10 15  
 Phe Ile Asp Val Ser Ser Lys Pro Cys Ala Gln Arg Thr Asn Thr Thr  
 20 25 30  
 Leu Ser Asp Asn Pro Phe Ser Val Ser Leu Ser Ile Cys Thr Ile Leu  
 35 40 45  
 Ile Arg Thr Thr Phe Gln Gly Lys Pro Leu Tyr Met Ser Gly Ile Arg  
 50 55 60  
 Cys Leu Asn Cys Ser Leu Val Glu Val Cys Ala Leu Thr Leu Val Asn  
 65 70 75 80  
 Phe Val Leu Phe Ser Val Ser Thr  
 85

<210> 10082  
 <211> 76  
 <212> PRT  
 <213> SARS coronavirus

<400> 10082  
 Met Thr Lys Tyr Phe Ile Asp Val Ser Ser Lys Pro Cys Ala Gln Arg  
 1 5 10 15  
 Thr Asn Thr Thr Leu Ser Asp Asn Pro Phe Ser Val Ser Leu Ser Ile  
 20 25 30  
 Cys Thr Ile Leu Ile Arg Thr Thr Phe Gln Gly Lys Pro Leu Tyr Met  
 35 40 45  
 Ser Gly Ile Arg Cys Leu Asn Cys Ser Leu Val Glu Val Cys Ala Leu  
 50 55 60  
 Thr Leu Val Asn Phe Val Leu Phe Ser Val Ser Thr  
 65 70 75

<210> 10083  
 <211> 29  
 <212> PRT  
 <213> SARS coronavirus

<400> 10083  
 Met Ser Gly Ile Arg Cys Leu Asn Cys Ser Leu Val Glu Val Cys Ala  
 1 5 10 15  
 Leu Thr Leu Val Asn Phe Val Leu Phe Ser Val Ser Thr  
 20 25

<210> 10084  
 <211> 1463  
 <212> DNA  
 <213> SARS coronavirus

SEQLIST-20480.TXT

```

<400> 10084
cctaggcata cccaaaggac atgacctacc gtagactcat ctctatgatg ggttttcaaaa 60
tgaattacca agtcaatggt taccctaata tgtttatcac ccgcgaagaa gctattcgtc 120
acgttcgtgc gtggattggc tttgatgtag agggctgtca tgcaactaga gatgctgtgg 180
gtactaacct acctctccag ctaggatttt ctacagggtg taacttagta gctgtaccga 240
ctggttatgt tgacactgaa aataacacag aattcaccag agttaatgca aaacctccac 300
cagggtgacca gtttaaacaat cttataccac tcatgtataa aggcttgccc tggaaatgtag 360
tgcgtattaa gatagtacaa atgctcagtg atacactgaa aggattgtca gacagagtcg 420
tgttcgtcct ttgggcgcat ggctttgagc ttacatcaat gaagtacttt gtcaagattg 480
gacctgaaag aacgtgttgt ctgtgtgaca aacgtgcaac ttgcttttct acttcatcag 540
atacttatgc ctgctggaat cattctgtgg gttttgacta tgtctataac ccatttatga 600
ttgatgttaa gcagtggggc tttacgggta accttcagag taaccatgac caacattgcc 660
aggtacatgg aaatgcacat gtggctagtt gtgatgctat catgactaga tgttttagcag 720
tccatgagtg ctttgtttaag cgcgttgatt ggtctgttga ataccctatt ataggagatg 780
aactgagggg taattctgct tgcagaaaag tacaacacat ggttgtgaag tctgcattgc 840
ttgctgataa gtttccagtt cttcatgaca taggaaatcc aaaggctatc aagtgtgtgc 900
ctcaggctga agtagaatgg aagttctacg atgctcagcc atgtagtgac aaagcttaca 960
aaatagagga actcttctat tcttatgcta tacatcacga taaattcact gatgggtgtt 1020
gtttgttttg gaattgtaac gttgatcgtt acccagccaa tgcaattgtg tgtagggttg 1080
acacaagagt cttgtcaaac ttgaacttac caggctgtga tgggtggtagt ttgtatgtga 1140
ataagcatgc attccacact ccagctttcg ataaaaagtg atttactaat ttaaagcaat 1200
tgccttttct ttactattct gatagtcctt gtgagtctca tggcaaacaa gtagtgctcg 1260
atattgatta tgttccactc aaatctgcta cgtgtattac acgatgcaat ttaggtgggtg 1320
ctgtttgcag acaccatgca aatgagtacc gacagtactt ggatgcatat aatatgatga 1380
tttctgctgg atttagccta tggatttaca aacaatttga tacttataac ctgtggaata 1440
catttaccag gttacagagt tta 1463

```

```

<210> 10085
<211> 7
<212> PRT
<213> Artificial Sequence

```

```

<220>
<223> Inferred translation product

```

```

<400> 10085
Pro Arg His Thr Gln Arg Thr
1 5

```

```

<210> 10086
<211> 7
<212> PRT
<213> Artificial Sequence

```

```

<220>
<223> Inferred translation product

```

```

<400> 10086
Pro Thr Val Asp Ser Ser Leu
1 5

```

```

<210> 10087
<211> 4
<212> PRT
<213> Artificial Sequence

```

```

<220>
<223> Inferred translation product

```

```

<400> 10087
Trp Val Ser Lys
1

```

SEQLIST-20480.TXT

<210> 10088  
 <211> 28  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10088  
 Ile Thr Lys Ser Met Val Thr Leu Ile Cys Leu Ser Pro Ala Lys Lys  
 1 5 10 15  
 Leu Phe Val Thr Phe Val Arg Gly Leu Ala Leu Met  
 20 25

<210> 10089  
 <211> 17  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10089  
 Arg Ala Val Met Gln Leu Glu Met Leu Trp Val Leu Thr Tyr Leu Ser  
 1 5 10 15  
 Ser

<210> 10090  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10090  
 Asp Phe Leu Gln Val Leu Thr  
 1 5

<210> 10091  
 <211> 42  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10091  
 Leu Tyr Arg Leu Val Met Leu Thr Leu Lys Ile Thr Gln Asn Ser Pro  
 1 5 10 15  
 Glu Leu Met Gln Asn Leu His Gln Val Thr Ser Leu Asn Ile Leu Tyr  
 20 25 30  
 His Ser Cys Ile Lys Ala Cys Pro Gly Met  
 35 40

<210> 10092  
 <211> 4

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10092  
Cys Val Leu Arg  
1

<210> 10093  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10093  
Tyr Lys Cys Ser Val Ile His  
1 5

<210> 10094  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10094  
Lys Asp Cys Gln Thr Glu Ser Cys Ser Ser Phe Gly Arg Met Ala Leu  
1 5 10 15

Ser Leu His Gln  
20

<210> 10095  
<211> 45  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10095  
Ser Thr Leu Ser Arg Leu Asp Leu Lys Glu Arg Val Val Cys Val Thr  
1 5 10 15

Asn Val Gln Leu Ala Phe Leu Leu His Gln Ile Leu Met Pro Ala Gly  
20 25 30

Ile Ile Leu Trp Val Leu Thr Met Ser Ile Thr His Leu  
35 40 45

<210> 10096  
<211> 34  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

SEQLIST-20480.TXT

<400> 10096  
 Leu Met Phe Ser Ser Gly Ala Leu Arg Val Thr Phe Arg Val Thr Met  
 1 5 10 15  
 Thr Asn Ile Ala Arg Tyr Met Glu Met His Met Trp Leu Val Val Met  
 20 25 30  
 Leu Ser

<210> 10097  
 <211> 18  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10097  
 Gln Ser Met Ser Ala Leu Leu Ser Ala Leu Ile Gly Leu Leu Asn Thr  
 1 5 10 15  
 Leu Leu

<210> 10098  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10098  
 Gly Leu Ile Leu Leu Ala Glu Lys Tyr Asn Thr Trp Leu  
 1 5 10

<210> 10099  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10099  
 Ser Leu His Cys Leu Leu Ile Ser Phe Gln Phe Phe Met Thr  
 1 5 10

<210> 10100  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10100  
 Glu Ile Gln Arg Leu Ser Ser Val Cys Leu Arg Leu Lys  
 1 5 10

<210> 10101  
 <211> 16

SEQLIST-20480.TXT

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10101  
Asn Gly Ser Ser Thr Met Leu Ser His Val Val Thr Lys Leu Thr Lys  
1 5 10 15

<210> 10102  
<211> 45  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10102  
Arg Asn Ser Ser Ile Leu Met Leu Tyr Ile Thr Ile Asn Ser Leu Met  
1 5 10 15

Val Phe Val Cys Phe Gly Ile Val Thr Leu Ile Val Thr Gln Pro Met  
20 25 30

Gln Leu Cys Val Gly Leu Thr Gln Glu Ser Cys Gln Thr  
35 40 45

<210> 10103  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10103  
Thr Tyr Gln Ala Val Met Val Val Val Cys Met  
1 5 10

<210> 10104  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10104  
Ile Ser Met His Ser Thr Leu Gln Leu Ser Ile Lys Val His Leu Leu  
1 5 10 15

Ile

<210> 10105  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

SEQLIST-20480.TXT

<400> 10105  
 Ser Asn Cys Leu Ser Phe Thr Ile Leu Ile Val Leu Val Ser Leu Met  
 1 5 10 15

Ala Asn Lys

<210> 10106  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10106  
 Cys Arg Ile Leu Ile Met Phe His Ser Asn Leu Leu Arg Val Leu His  
 1 5 10 15

Asp Ala Ile

<210> 10107  
 <211> 20  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10107  
 Val Val Leu Phe Ala Asp Thr Met Gln Met Ser Thr Asp Ser Thr Trp  
 1 5 10 15

Met His Ile Ile  
 20

<210> 10108  
 <211> 27  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10108  
 Phe Leu Leu Asp Leu Ala Tyr Gly Phe Thr Asn Asn Leu Ile Leu Ile  
 1 5 10 15

Thr Cys Gly Ile His Leu Pro Gly Tyr Arg Val  
 20 25

<210> 10109  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10109  
 Leu Gly Ile Pro Lys Gly His Asp Leu Pro

```

1          5          10
<210>      10110
<211>      17
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10110
Thr His Leu Tyr Asp Gly Phe Gln Asn Glu Leu Pro Ser Gln Trp Leu
1          5          10          15

Pro

<210>      10111
<211>      18
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10111
Tyr Val Tyr His Pro Arg Arg Ser Tyr Ser Ser Arg Ser Cys Val Asp
1          5          10          15

Trp Leu

<210>      10112
<211>      7
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10112
Cys Arg Gly Leu Ser Cys Asn
1          5

<210>      10113
<211>      5
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10113
Arg Cys Cys Gly Tyr
1          5

<210>      10114
<211>      11
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

```



SEQLIST-20480.TXT

<400> 10114  
Pro Thr Ser Pro Ala Arg Ile Phe Tyr Arg Cys  
1 5 10

<210> 10115  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10115  
Leu Ser Ser Cys Thr Asp Trp Leu Cys  
1 5

<210> 10116  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10116  
His Arg Ile His Gln Ser  
1 5

<210> 10117  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10117  
Cys Lys Thr Ser Thr Arg  
1 5

<210> 10118  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10118  
Thr Ser Tyr Thr Thr His Val  
1 5

<210> 10119  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10119  
Arg Leu Ala Leu Glu Cys Ser Ala Tyr

```

1          5
<210>      10120
<211>      6
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10120
Asp Ser Thr Asn Ala Gln
1          5

<210>      10121
<211>      18
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10121
Tyr Thr Glu Arg Ile Val Arg Gln Ser Arg Val Arg Pro Leu Gly Ala
1          5          10          15

Trp Leu

<210>      10122
<211>      12
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10122
Ala Tyr Ile Asn Glu Val Leu Cys Gln Asp Trp Thr
1          5          10

<210>      10123
<211>      6
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10123
Lys Asn Val Leu Ser Val
1          5

<210>      10124
<211>      22
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10124
Gln Thr Cys Asn Leu Leu Phe Tyr Phe Ile Arg Tyr Leu Cys Leu Leu

```

1 5 15

Glu Ser Phe Cys Gly Phe  
20

<210> 10125  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10125  
Pro Ile Tyr Asp  
1

<210> 10126  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10126  
Cys Ser Ala Val Gly Leu Tyr Gly  
1 5

<210> 10127  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10127  
Pro Thr Leu Pro Gly Thr Trp Lys Cys Thr Cys Gly  
1 5 10

<210> 10128  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10128  
Cys Tyr His Asp  
1

<210> 10129  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10129  
Met Phe Ser Ser Pro

```

1          5
<210>      10130
<211>      6
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10130
Ile Pro Tyr Tyr Arg Arg
1          5

<210>      10131
<211>      17
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10131
Phe Cys Leu Gln Lys Ser Thr Thr His Gly Cys Glu Val Cys Ile Ala
1          5          10          15
Cys

<210>      10132
<211>      5
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10132
Val Ser Ser Ser Ser
1          5

<210>      10133
<211>      13
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10133
His Arg Lys Ser Lys Gly Tyr Gln Val Cys Ala Ser Gly
1          5          10

<210>      10134
<211>      11
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10134
Ser Arg Met Glu Val Leu Arg Cys Ser Ala Met

```

1 5 10  
 <210> 10135  
 <211> 17  
 <212> PRT  
 <213> Artificial Sequence  
 <220>  
 <223> Inferred translation product  
 <400> 10135  
 Gln Ser Leu Gln Asn Arg Gly Thr Leu Leu Phe Leu Cys Tyr Thr Ser  
 1 5 10 15

Arg

<210> 10136  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence  
 <220>  
 <223> Inferred translation product  
 <400> 10136  
 Trp Cys Leu Phe Val Leu Glu Leu  
 1 5

<210> 10137  
 <211> 9  
 <212> PRT  
 <213> Artificial Sequence  
 <220>  
 <223> Inferred translation product  
 <400> 10137  
 Ser Leu Pro Ser Gln Cys Asn Cys Val  
 1 5

<210> 10138  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence  
 <220>  
 <223> Inferred translation product  
 <400> 10138  
 His Lys Ser Leu Val Lys Leu Glu Leu Thr Arg Leu  
 1 5 10

<210> 10139  
 <211> 4  
 <212> PRT  
 <213> Artificial Sequence  
 <220>  
 <223> Inferred translation product  
 <400> 10139  
 Phe Val Cys Glu

1

<210> 10140  
 <211> 9  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10140  
 Ala Cys Ile Pro His Ser Ser Phe Arg  
 1 5

<210> 10141  
 <211> 4  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10141  
 Lys Cys Ile Tyr  
 1

<210> 10142  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10142  
 Phe Lys Ala Ile Ala Phe Leu Leu Leu Phe  
 1 5 10

<210> 10143  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10143  
 Val Ser Trp Gln Thr Ser Ser Val Gly Tyr  
 1 5 10

<210> 10144  
 <211> 25  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10144  
 Leu Cys Ser Thr Gln Ile Cys Tyr Val Tyr Tyr Thr Met Gln Phe Arg  
 1 5 10 15

Trp Cys Cys Leu Gln Thr Pro Cys Lys

20

<210> 10145  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10145  
Val Pro Thr Val Leu Gly Cys Ile  
1 5

<210> 10146  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10146  
Tyr Asp Asp Phe Cys Trp Ile  
1 5

<210> 10147  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10147  
Pro Met Asp Leu Gln Thr Ile  
1 5

<210> 10148  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10148  
Pro Val Glu Tyr Ile Tyr Gln Val Thr Glu Phe  
1 5 10

<210> 10149  
<211> 486  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10149  
Ala Tyr Pro Lys Asp Met Thr Tyr Arg Arg Leu Ile Ser Met Met Gly  
1 5 10 15

Phe Lys Met Asn Tyr Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr

## 30

Page 2467



355 360 365  
 Pro Gly Cys Asp Gly Gly Ser Leu Tyr Val Asn Lys His Ala Phe His  
 370 375 380  
 Thr Pro Ala Phe Asp Lys Ser Ala Phe Thr Asn Leu Lys Gln Leu Pro  
 385 390 395 400  
 Phe Phe Tyr Tyr Ser Asp Ser Pro Cys Glu Ser His Gly Lys Gln Val  
 405 410 415  
 Val Ser Asp Ile Asp Tyr Val Pro Leu Lys Ser Ala Thr Cys Ile Thr  
 420 425 430  
 Arg Cys Asn Leu Gly Gly Ala Val Cys Arg His His Ala Asn Glu Tyr  
 435 440 445  
 Arg Gln Tyr Leu Asp Ala Tyr Asn Met Met Ile Ser Ala Gly Phe Ser  
 450 455 460  
 Leu Trp Ile Tyr Lys Gln Phe Asp Thr Tyr Asn Leu Trp Asn Thr Phe  
 465 470 475 480  
 Thr Arg Leu Gln Ser Leu  
 485

<210> 10150  
 <211> 17  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10150  
 Pro Gly Lys Cys Ile Pro Gln Val Ile Ser Ile Lys Leu Phe Val Asn  
 1 5 10 15

Pro

<210> 10151  
 <211> 28  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10151  
 Ala Lys Ser Ser Arg Asn His His Ile Ile Cys Ile Gln Val Leu Ser  
 1 5 10 15

Val Leu Ile Cys Met Val Ser Ala Asn Ser Thr Thr  
 20 25

<210> 10152  
 <211> 39  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

SEQLIST-20480.TXT

<400> 10152  
 Ile Ala Ser Cys Asn Thr Arg Ser Arg Phe Glu Trp Asn Ile Ile Asn  
 1 5 10 15  
 Ile Arg His Tyr Leu Phe Ala Met Arg Leu Thr Arg Thr Ile Arg Ile  
 20 25 30  
 Val Lys Glu Arg Gln Leu Leu  
 35

<210> 10153  
 <211> 27  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10153  
 Ile Ser Lys Cys Thr Phe Ile Glu Ser Trp Ser Val Glu Cys Met Leu  
 1 5 10 15  
 Ile His Ile Gln Thr Thr Thr Ile Thr Ala Trp  
 20 25

<210> 10154  
 <211> 126  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10154  
 Gln Asp Ser Cys Val Lys Pro Thr His Asn Cys Ile Gly Trp Val Thr  
 1 5 10 15  
 Ile Asn Val Thr Ile Pro Lys Gln Thr Asn Thr Ile Ser Glu Phe Ile  
 20 25 30  
 Val Met Tyr Ser Ile Arg Ile Glu Glu Phe Leu Tyr Phe Val Ser Phe  
 35 40 45  
 Val Thr Thr Trp Leu Ser Ile Val Glu Leu Pro Phe Tyr Phe Ser Leu  
 50 55 60  
 Arg His Thr Leu Asp Ser Leu Trp Ile Ser Tyr Val Met Lys Asn Trp  
 65 70 75 80  
 Lys Leu Ile Ser Lys Gln Cys Arg Leu His Asn His Val Leu Tyr Phe  
 85 90 95  
 Ser Ala Ser Arg Ile Asn Pro Gln Phe Ile Ser Tyr Asn Arg Val Phe  
 100 105 110  
 Asn Arg Pro Ile Asn Ala Leu Asn Lys Ala Leu Met Asp Cys  
 115 120 125

<210> 10155  
 <211> 58  
 <212> PRT  
 <213> Artificial Sequence

SEQLIST-20480.TXT

<220>  
 <223> Inferred translation product  
 <400> 10155  
 Thr Ser Ser His Asp Ser Ile Thr Thr Ser His Met Cys Ile Ser Met  
 1 5 10 15  
 Tyr Leu Ala Met Leu Val Met Val Thr Leu Lys Val Thr Arg Lys Ala  
 20 25 30  
 Pro Leu Leu Asn Ile Asn His Lys Trp Val Ile Asp Ile Val Lys Thr  
 35 40 45  
 His Arg Met Ile Pro Ala Gly Ile Ser Ile  
 50 55

<210> 10156  
 <211> 25  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product  
 <400> 10156  
 Ser Arg Lys Ala Ser Cys Thr Phe Val Thr Gln Thr Thr Arg Ser Phe  
 1 5 10 15  
 Arg Ser Asn Leu Asp Lys Val Leu His  
 20 25

<210> 10157  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product  
 <400> 10157  
 Cys Lys Leu Lys Ala Met Arg Pro Lys Asp Glu His Asp Ser Val  
 1 5 10 15  
 <210> 10158  
 <211> 60  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product  
 <400> 10158  
 Gln Ser Phe Gln Cys Ile Thr Glu His Leu Tyr Tyr Leu Asn Thr His  
 1 5 10 15  
 Tyr Ile Pro Gly Gln Ala Phe Ile His Glu Trp Tyr Lys Met Phe Lys  
 20 25 30  
 Leu Val Thr Trp Trp Arg Phe Cys Ile Asn Ser Gly Glu Phe Cys Val  
 35 40 45  
 Ile Phe Ser Val Asn Ile Thr Ser Arg Tyr Ser Tyr

50

55

<210> 10159  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10159  
Val Asn Thr Cys Arg Lys Ser  
1 5

<210> 10160  
<211> 62  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10160  
Val Ser Thr His Ser Ile Ser Ser Cys Met Thr Ala Leu Tyr Ile Lys  
1 5 10 15  
Ala Asn Pro Arg Thr Asn Val Thr Asn Ser Phe Phe Ala Gly Asp Lys  
20 25 30  
His Ile Arg Val Thr Ile Asp Leu Val Ile His Phe Glu Thr His His  
35 40 45  
Arg Asp Glu Ser Thr Val Gly His Val Leu Trp Val Cys Leu  
50 55 60

<210> 10161  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10161  
Lys Leu Cys Asn Leu Val Asn Val Phe His Arg Leu  
1 5 10

<210> 10162  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10162  
Val Ser Asn Cys Leu  
1 5

<210> 10163  
<211> 45  
<212> PRT  
<213> Artificial Sequence

SEQLIST-20480.TXT

```

<220>
<223>   Inferred translation product

<400>   10163
Ile His Arg Leu Asn Pro Ala Glu Ile Ile Ile Leu Tyr Ala Ser Lys
1          5          10          15

Tyr Cys Arg Tyr Ser Phe Ala Trp Cys Leu Gln Thr Ala Pro Pro Lys
          20          25          30

Leu His Arg Val Ile His Val Ala Asp Leu Ser Gly Thr
          35          40          45

<210>   10164
<211>   9
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10164
Ser Ile Ser Asp Thr Thr Cys Leu Pro
1          5

<210>   10165
<211>   7
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10165
Asp Ser Gln Gly Leu Ser Glu
1          5

<210>   10166
<211>   68
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   10166
Lys Lys Gly Asn Cys Phe Lys Leu Val Asn Ala Leu Leu Ser Lys Ala
1          5          10          15

Gly Val Trp Asn Ala Cys Leu Phe Thr Tyr Lys Leu Pro Pro Ser Gln
          20          25          30

Pro Gly Lys Phe Lys Phe Asp Lys Thr Leu Val Ser Asn Leu His Thr
          35          40          45

Ile Ala Leu Arg Ser Thr Leu Gln Phe Gln Asn Lys Gln Thr Pro Ser
          50          55          60

Val Asn Leu Ser
65

<210>   10167

```

SEQLIST-20480.TXT

<211> 6  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10167  
 Lys Ser Ser Ser Ile Leu  
 1 5

<210> 10168  
 <211> 6  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10168  
 Ala Leu Ser Leu His Gly  
 1 5

<210> 10169  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10169  
 Asn Phe His Ser Thr Ser Ala  
 1 5

<210> 10170  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10170  
 Gly Thr His Leu Ile Ala Phe Gly Phe Pro Met Ser  
 1 5 10

<210> 10171  
 <211> 75  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10171  
 Arg Thr Gly Asn Leu Ser Ala Ser Asn Ala Asp Phe Thr Thr Met Cys  
 1 5 10 15

Cys Thr Phe Leu Gln Ala Glu Leu Thr Leu Ser Ser Ser Pro Ile Ile  
 20 25 30

Gly Tyr Ser Thr Asp Gln Ser Thr Arg Leu Thr Lys His Ser Trp Thr

35

40

45

Ala Lys His Leu Val Met Ile Ala Ser Gln Leu Ala Thr Cys Ala Phe  
50 55 60

Pro Cys Thr Trp Gln Cys Trp Ser Trp Leu Leu  
65 70 75

<210> 10172

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10172

Arg Leu Pro Val Lys Pro His Cys  
1 5

<210> 10173

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10173

Thr Ser Ile Ile Asn Gly Leu  
1 5

<210> 10174

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10174

Ser Lys Pro Thr Glu  
1 5

<210> 10175

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10175

Phe Gln Gln Ala  
1

<210> 10176

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

SEQLIST-20480.TXT

<400> 10176  
Val Ser Asp Glu Val Glu Lys Gln Val Ala Arg Leu Ser His Arg Gln  
1 5 10 15  
His Val Leu Ser Gly Pro Ile Leu Thr Lys Tyr Phe Ile Asp Val Ser  
20 25 30  
Ser Lys Pro Cys Ala Gln Arg Thr Asn Thr Thr Leu Ser Asp Asn Pro  
35 40 45  
Phe Ser Val Ser Leu Ser Ile Cys Thr Ile Leu Ile Arg Thr Thr Phe  
50 55 60  
Gln Gly Lys Pro Leu Tyr Met Ser Gly Ile Arg Cys Leu Asn Trp Ser  
65 70 75 80  
Pro Gly Gly Gly Phe Ala Leu Thr Leu Val Asn Ser Val Leu Phe Ser  
85 90 95  
Val Ser Thr

<210> 10177  
<211> 28  
<212> PRT  
<213> Artificial Sequence  
<220>  
<223> Inferred translation product

<400> 10177  
Pro Val Gly Thr Ala Thr Lys Leu Thr Pro Val Glu Asn Pro Ser Trp  
1 5 10 15  
Arg Gly Arg Leu Val Pro Thr Ala Ser Leu Val Ala  
20 25

<210> 10178  
<211> 12  
<212> PRT  
<213> Artificial Sequence  
<220>  
<223> Inferred translation product

<400> 10178  
Gln Pro Ser Thr Ser Lys Pro Ile His Ala Arg Thr  
1 5 10

<210> 10179  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10179  
Arg Ile Ala Ser Ser Arg Val Ile Asn Ile Leu Gly  
1 5 10

<210> 10180



<211> 4  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10180  
 Pro Leu Thr Trp  
 1

<210> 10181  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10181  
 Phe Ile Leu Lys Pro Ile Ile Glu Met Ser Leu Arg  
 1 5 10

<210> 10182  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10182  
 Val Met Ser Phe Gly Tyr Ala  
 1 5

<210> 10183  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10183  
 Asn Ser Val Thr Trp  
 1 5

<210> 10184  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10184  
 Met Tyr Ser Thr Gly Tyr Lys Tyr Gln Ile Val Cys Lys Ser Ile Gly  
 1 5 10 15

<210> 10185  
 <211> 31  
 <212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10185

Ile Gln Gln Lys Ser Ser Tyr Tyr Met His Pro Ser Thr Val Gly Thr  
1 5 10 15

His Leu His Gly Val Cys Lys Gln His His Leu Asn Cys Ile Val  
20 25 30

<210> 10186

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10186

Val Glu His Asn Gln Tyr Pro Thr Leu Leu Val Cys His Glu Thr His  
1 5 10 15

Lys Asp Tyr Gln Asn Ser Lys Arg Lys Ala Ile Ala Leu Asn  
20 25 30

<210> 10187

<211> 58

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10187

Met His Phe Tyr Arg Lys Leu Glu Cys Gly Met His Ala Tyr Ser His  
1 5 10 15

Thr Asn Tyr His His His Ser Leu Val Ser Ser Ser Leu Thr Arg Leu  
20 25 30

Leu Cys Gln Thr Tyr Thr Gln Leu His Trp Leu Gly Asn Asp Gln Arg  
35 40 45

Tyr Asn Ser Lys Thr Asn Lys His His Gln  
50 55

<210> 10188

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10188

Ile Tyr Arg Asp Val  
1 5

<210> 10189

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10189

His Lys Asn Arg Arg Val Pro Leu Phe Cys Lys Leu Cys His Tyr Met  
1 5 10 15

Ala Glu His Arg Arg Thr Ser Ile Leu Leu Gln Pro Glu Ala His Thr  
20 25 30

<210> 10190

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10190

Pro Leu Asp Phe Leu Cys His Glu Glu Leu Glu Thr Tyr Gln Gln Ala  
1 5 10 15

Met Gln Thr Ser Gln Pro Cys Val Val Leu Phe Cys Lys Gln Asn  
20 25 30

<210> 10191

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10191

Pro Ser Val His Leu Leu  
1 5

<210> 10192

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10192

Gly Ile Gln Gln Thr Asn Gln Arg Ala  
1 5

<210> 10193

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10193

Gln Ser Thr His Gly Leu Leu Asn Ile  
1 5

SEQLIST-20480.TXT

<210> 10194  
 <211> 20  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10194  
 Pro His Val His phe His Val Pro Gly Asn Val Gly His Gly Tyr Ser  
 1 5 10 15  
 Glu Gly Tyr Pro  
 20

<210> 10195  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10195  
 Ser Pro Thr Ala Glu His Gln Ser  
 1 5

<210> 10196  
 <211> 21  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10196  
 Met Gly Tyr Arg His Ser Gln Asn Pro Gln Asn Asp Ser Ser Arg His  
 1 5 10 15  
 Lys Tyr Leu Met Lys  
 20

<210> 10197  
 <211> 18  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10197  
 Lys Ser Lys Leu His Val Cys His Thr Asp Asn Thr Phe Phe Gln Val  
 1 5 10 15  
 Gln Ser

<210> 10198  
 <211> 6  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10198

Gln Ser Thr Ser Leu Met  
1 5

<210> 10199

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10199

Ala Gln Ser His Ala Pro Lys Gly Arg Thr Arg Leu Cys Leu Thr Ile  
1 5 10 15

Leu Ser Val Tyr His  
20

<210> 10200

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10200

Ala Phe Val Leu Ser  
1 5

<210> 10201

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10201

Tyr Ala Leu His Ser Arg Ala Ser Leu Tyr Thr  
1 5 10

<210> 10202

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10202

Thr Gly His Leu Val Glu Val Leu His  
1 5

<210> 10203

<211> 17

<212> PRT

<213> Artificial Sequence

SEQLIST-20480.TXT

<220>

<223> Inferred translation product

<400> 10203

Ile Leu Cys Tyr phe Gln Cys Gln His Asn Gln Ser Val Gln Leu Leu  
1 5 10 15

Ser

<210> 10204

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10204

Lys Ile Leu Ala Gly Glu Val Gly  
1 5

<210> 10205

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10205

Tyr Pro Gln His Leu  
1 5

<210> 10206

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10206

Leu His Asp Ser Pro Leu His Gln Ser Gln Ser Thr His Glu Arg Asp  
1 5 10 15

Glu

<210> 10207

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10207

Leu Leu Arg Gly  
1

<210> 10208

<211> 5

SEQLIST-20480.TXT

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10208  
Leu Gly Asn Ser Phe  
1 5

<210> 10209  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10209  
Val Tyr Gly Arg Ser Cys Pro Leu Gly Met Pro Arg  
1 5 10

<210> 10210  
<211> 481  
<212> PRT  
<213> SARS coronavirus

<400> 10210  
Met Thr Tyr Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met Asn Tyr  
1 5 10 15

Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu Ala Ile  
20 25 30

Arg His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys His Ala  
35 40 45

Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly Phe Ser  
50 55 60

Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp Thr Glu  
65 70 75 80

Asn Asn Thr Glu Phe Thr Arg Val Asn Ala Lys Pro Pro Pro Gly Asp  
85 90 95

Gln Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro Trp Asn  
100 105 110

Val Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu Lys Gly  
115 120 125

Leu Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe Glu Leu  
130 135 140

Thr Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr Cys Cys  
145 150 155 160

Leu Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp Thr Tyr  
165 170 175

Ala Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn Pro Phe  
180 185 190

SEQLIST-20480.TXT

Met Ile Asp Val Gln Gln Trp Gly Phe Thr Gly Asn Leu Gln Ser Asn  
195 200 205  
His Asp Gln His Cys Gln Val His Gly Asn Ala His Val Ala Ser Cys  
210 215 220  
Asp Ala Ile Met Thr Arg Cys Leu Ala Val His Glu Cys Phe Val Lys  
225 230 235 240  
Arg Val Asp Trp Ser Val Glu Tyr Pro Ile Ile Gly Asp Glu Leu Arg  
245 250 255  
Val Asn Ser Ala Cys Arg Lys Val Gln His Met Val Val Lys Ser Ala  
260 265 270  
Leu Leu Ala Asp Lys Phe Pro Val Leu His Asp Ile Gly Asn Pro Lys  
275 280 285  
Ala Ile Lys Cys Val Pro Gln Ala Glu Val Glu Trp Lys Phe Tyr Asp  
290 295 300  
Ala Gln Pro Cys Ser Asp Lys Ala Tyr Lys Ile Glu Glu Leu Phe Tyr  
305 310 315 320  
Ser Tyr Ala Ile His His Asp Lys Phe Thr Asp Gly Val Cys Leu Phe  
325 330 335  
Trp Asn Cys Asn Val Asp Arg Tyr Pro Ala Asn Ala Ile Val Cys Arg  
340 345 350  
Phe Asp Thr Arg Val Leu Ser Asn Leu Asn Leu Pro Gly Cys Asp Gly  
355 360 365  
Gly Ser Leu Tyr Val Asn Lys His Ala Phe His Thr Pro Ala Phe Asp  
370 375 380  
Lys Ser Ala Phe Thr Asn Leu Lys Gln Leu Pro Phe Phe Tyr Tyr Ser  
385 390 395 400  
Asp Ser Pro Cys Glu Ser His Gly Lys Gln Val Val Ser Asp Ile Asp  
405 410 415  
Tyr Val Pro Leu Lys Ser Ala Thr Cys Ile Thr Arg Cys Asn Leu Gly  
420 425 430  
Gly Ala Val Cys Arg His His Ala Asn Glu Tyr Arg Gln Tyr Leu Asp  
435 440 445  
Ala Tyr Asn Met Met Ile Ser Ala Gly Phe Ser Leu Trp Ile Tyr Lys  
450 455 460  
Gln Phe Asp Thr Tyr Asn Leu Trp Asn Thr Phe Thr Arg Leu Gln Ser  
465 470 475 480  
Leu

<210> 10211  
<211> 468  
<212> PRT  
<213> SARS coronavirus



SEQLIST-20480.TXT

<400> 10211  
Met Asn Tyr Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu  
1 5 10 15  
Glu Ala Ile Arg His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly  
20 25 30  
Cys His Ala Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu  
35 40 45  
Gly Phe Ser Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val  
50 55 60  
Asp Thr Glu Asn Asn Thr Glu Phe Thr Arg Val Asn Ala Lys Pro Pro  
65 70 75 80  
Pro Gly Asp Gln Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu  
85 90 95  
Pro Trp Asn Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr  
100 105 110  
Leu Lys Gly Leu Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly  
115 120 125  
Phe Glu Leu Thr Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg  
130 135 140  
Thr Cys Cys Leu Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser  
145 150 155 160  
Asp Thr Tyr Ala Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr  
165 170 175  
Asn Pro Phe Met Ile Asp Val Gln Gln Trp Gly Phe Thr Gly Asn Leu  
180 185 190  
Gln Ser Asn His Asp Gln His Cys Gln Val His Gly Asn Ala His Val  
195 200 205  
Ala Ser Cys Asp Ala Ile Met Thr Arg Cys Leu Ala Val His Glu Cys  
210 215 220  
Phe Val Lys Arg Val Asp Trp Ser Val Glu Tyr Pro Ile Ile Gly Asp  
225 230 235 240  
Glu Leu Arg Val Asn Ser Ala Cys Arg Lys Val Gln His Met Val Val  
245 250 255  
Lys Ser Ala Leu Leu Ala Asp Lys Phe Pro Val Leu His Asp Ile Gly  
260 265 270  
Asn Pro Lys Ala Ile Lys Cys Val Pro Gln Ala Glu Val Glu Trp Lys  
275 280 285  
Phe Tyr Asp Ala Gln Pro Cys Ser Asp Lys Ala Tyr Lys Ile Glu Glu  
290 295 300  
Leu Phe Tyr Ser Tyr Ala Ile His His Asp Lys Phe Thr Asp Gly Val  
305 310 315 320  
Cys Leu Phe Trp Asn Cys Asn Val Asp Arg Tyr Pro Ala Asn Ala Ile  
325 330 335

SEQLIST-20480.TXT

Val Cys Arg Phe Asp Thr Arg Val Leu Ser Asn Leu Asn Leu Pro Gly  
340 345 350  
Cys Asp Gly Gly Ser Leu Tyr Val Asn Lys His Ala Phe His Thr Pro  
355 360 365  
Ala Phe Asp Lys Ser Ala Phe Thr Asn Leu Lys Gln Leu Pro Phe Phe  
370 375 380  
Tyr Tyr Ser Asp Ser Pro Cys Glu Ser His Gly Lys Gln Val Val Ser  
385 390 395 400  
Asp Ile Asp Tyr Val Pro Leu Lys Ser Ala Thr Cys Ile Thr Arg Cys  
405 410 415  
Asn Leu Gly Gly Ala Val Cys Arg His His Ala Asn Glu Tyr Arg Gln  
420 425 430  
Tyr Leu Asp Ala Tyr Asn Met Met Ile Ser Ala Gly Phe Ser Leu Trp  
435 440 445  
Ile Tyr Lys Gln Phe Asp Thr Tyr Asn Leu Trp Asn Thr Phe Thr Arg  
450 455 460

Leu Gln Ser Leu  
465

<210> 10212  
<211> 458  
<212> PRT  
<213> SARS coronavirus

<400> 10212  
Met Phe Ile Thr Arg Glu Glu Ala Ile Arg His Val Arg Ala Trp Ile  
1 5 10 15  
Gly Phe Asp Val Glu Gly Cys His Ala Thr Arg Asp Ala Val Gly Thr  
20 25 30  
Asn Leu Pro Leu Gln Leu Gly Phe Ser Thr Gly Val Asn Leu Val Ala  
35 40 45  
Val Pro Thr Gly Tyr Val Asp Thr Glu Asn Asn Thr Glu Phe Thr Arg  
50 55 60  
Val Asn Ala Lys Pro Pro Pro Gly Asp Gln Phe Lys His Leu Ile Pro  
65 70 75 80  
Leu Met Tyr Lys Gly Leu Pro Trp Asn Val Val Arg Ile Lys Ile Val  
85 90 95  
Gln Met Leu Ser Asp Thr Leu Lys Gly Leu Ser Asp Arg Val Val Phe  
100 105 110  
Val Leu Trp Ala His Gly Phe Glu Leu Thr Ser Met Lys Tyr Phe Val  
115 120 125  
Lys Ile Gly Pro Glu Arg Thr Cys Cys Leu Cys Asp Lys Arg Ala Thr  
130 135 140  
Cys Phe Ser Thr Ser Ser Asp Thr Tyr Ala Cys Trp Asn His Ser Val  
145 150 155 160

SEQLIST-20480.TXT

Gly Phe Asp Tyr Val Tyr Asn Pro Phe Met Ile Asp Val Gln Gln Trp  
165 170 175  
Gly Phe Thr Gly Asn Leu Gln Ser Asn His Asp Gln His Cys Gln Val  
180 185 190  
His Gly Asn Ala His Val Ala Ser Cys Asp Ala Ile Met Thr Arg Cys  
195 200 205  
Leu Ala Val His Glu Cys Phe Val Lys Arg Val Asp Trp Ser Val Glu  
210 215 220  
Tyr Pro Ile Ile Gly Asp Glu Leu Arg Val Asn Ser Ala Cys Arg Lys  
225 230 235 240  
Val Gln His Met Val Val Lys Ser Ala Leu Leu Ala Asp Lys Phe Pro  
245 250 255  
Val Leu His Asp Ile Gly Asn Pro Lys Ala Ile Lys Cys Val Pro Gln  
260 265 270  
Ala Glu Val Glu Trp Lys Phe Tyr Asp Ala Gln Pro Cys Ser Asp Lys  
275 280 285  
Ala Tyr Lys Ile Glu Glu Leu Phe Tyr Ser Tyr Ala Ile His His Asp  
290 295 300  
Lys Phe Thr Asp Gly Val Cys Leu Phe Trp Asn Cys Asn Val Asp Arg  
305 310 315 320  
Tyr Pro Ala Asn Ala Ile Val Cys Arg Phe Asp Thr Arg Val Leu Ser  
325 330 335  
Asn Leu Asn Leu Pro Gly Cys Asp Gly Gly Ser Leu Tyr Val Asn Lys  
340 345 350  
His Ala Phe His Thr Pro Ala Phe Asp Lys Ser Ala Phe Thr Asn Leu  
355 360 365  
Lys Gln Leu Pro Phe Phe Tyr Tyr Ser Asp Ser Pro Cys Glu Ser His  
370 375 380  
Gly Lys Gln Val Val Ser Asp Ile Asp Tyr Val Pro Leu Lys Ser Ala  
385 390 395 400  
Thr Cys Ile Thr Arg Cys Asn Leu Gly Gly Ala Val Cys Arg His His  
405 410 415  
Ala Asn Glu Tyr Arg Gln Tyr Leu Asp Ala Tyr Asn Met Met Ile Ser  
420 425 430  
Ala Gly Phe Ser Leu Trp Ile Tyr Lys Gln Phe Asp Thr Tyr Asn Leu  
435 440 445  
Trp Asn Thr Phe Thr Arg Leu Gln Ser Leu  
450 455

<210> 10213  
<211> 254  
<212> PRT  
<213> SARS coronavirus

SEQLIST-20480.TXT

<400> 10213

```

Met Thr Arg Cys Leu Ala Val His Glu Cys Phe Val Lys Arg Val Asp
1      5      10      15
Trp Ser Val Glu Tyr Pro Ile Ile Gly Asp Glu Leu Arg Val Asn Ser
      20      25      30
Ala Cys Arg Lys Val Gln His Met Val Val Lys Ser Ala Leu Leu Ala
      35      40      45
Asp Lys Phe Pro Val Leu His Asp Ile Gly Asn Pro Lys Ala Ile Lys
      50      55      60
Cys Val Pro Gln Ala Glu Val Glu Trp Lys Phe Tyr Asp Ala Gln Pro
      65      70      75      80
Cys Ser Asp Lys Ala Tyr Lys Ile Glu Glu Leu Phe Tyr Ser Tyr Ala
      85      90      95
Ile His His Asp Lys Phe Thr Asp Gly Val Cys Leu Phe Trp Asn Cys
      100     105     110
Asn Val Asp Arg Tyr Pro Ala Asn Ala Ile Val Cys Arg Phe Asp Thr
      115     120     125
Arg Val Leu Ser Asn Leu Asn Leu Pro Gly Cys Asp Gly Gly Ser Leu
      130     135     140
Tyr Val Asn Lys His Ala Phe His Thr Pro Ala Phe Asp Lys Ser Ala
      145     150     155     160
Phe Thr Asn Leu Lys Gln Leu Pro Phe Phe Tyr Tyr Ser Asp Ser Pro
      165     170     175
Cys Glu Ser His Gly Lys Gln Val Val Ser Asp Ile Asp Tyr Val Pro
      180     185     190
Leu Lys Ser Ala Thr Cys Ile Thr Arg Cys Asn Leu Gly Gly Ala Val
      195     200     205
Cys Arg His His Ala Asn Glu Tyr Arg Gln Tyr Leu Asp Ala Tyr Asn
      210     215     220
Met Met Ile Ser Ala Gly Phe Ser Leu Trp Ile Tyr Lys Gln Phe Asp
      225     230     235     240
Thr Tyr Asn Leu Trp Asn Thr Phe Thr Arg Leu Gln Ser Leu
      245     250

```

<210> 10214

<211> 215

<212> PRT

<213> SARS coronavirus

<400> 10214

```

Met Val Val Lys Ser Ala Leu Leu Ala Asp Lys Phe Pro Val Leu His
1      5      10      15
Asp Ile Gly Asn Pro Lys Ala Ile Lys Cys Val Pro Gln Ala Glu Val
      20      25      30
Glu Trp Lys Phe Tyr Asp Ala Gln Pro Cys Ser Asp Lys Ala Tyr Lys
      35      40      45

```

SEQLIST-20480.TXT

Ile Glu Glu Leu Phe Tyr Ser Tyr Ala Ile His His Asp Lys Phe Thr  
50 55 60  
Asp Gly Val Cys Leu Phe Trp Asn Cys Asn Val Asp Arg Tyr Pro Ala  
65 70 75 80  
Asn Ala Ile Val Cys Arg Phe Asp Thr Arg Val Leu Ser Asn Leu Asn  
85 90 95  
Leu Pro Gly Cys Asp Gly Gly Ser Leu Tyr Val Asn Lys His Ala Phe  
100 105 110  
His Thr Pro Ala Phe Asp Lys Ser Ala Phe Thr Asn Leu Lys Gln Leu  
115 120 125  
Pro Phe Phe Tyr Tyr Ser Asp Ser Pro Cys Glu Ser His Gly Lys Gln  
130 135 140  
Val Val Ser Asp Ile Asp Tyr Val Pro Leu Lys Ser Ala Thr Cys Ile  
145 150 155 160  
Thr Arg Cys Asn Leu Gly Gly Ala Val Cys Arg His His Ala Asn Glu  
165 170 175  
Tyr Arg Gln Tyr Leu Asp Ala Tyr Asn Met Met Ile Ser Ala Gly Phe  
180 185 190  
Ser Leu Trp Ile Tyr Lys Gln Phe Asp Thr Tyr Asn Leu Trp Asn Thr  
195 200 205  
Phe Thr Arg Leu Gln Ser Leu  
210 215

<210> 10215  
<211> 75  
<212> PRT  
<213> SARS coronavirus

<400> 10215  
His Gly Lys Gln Val Val Ser Asp Ile Asp Tyr Val Pro Leu Lys Ser  
1 5 10 15  
Ala Thr Cys Ile Thr Arg Cys Asn Leu Gly Gly Ala Val Cys Arg His  
20 25 30  
His Ala Asn Glu Tyr Arg Gln Tyr Leu Asp Ala Tyr Asn Met Met Ile  
35 40 45  
Ser Ala Gly Phe Ser Leu Trp Ile Tyr Lys Gln Phe Asp Thr Tyr Asn  
50 55 60  
Leu Trp Asn Thr Phe Thr Arg Leu Gln Ser Leu  
65 70 75

<210> 10216  
<211> 1152  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Fusion protein - SARS and bovine coronaviruses

SEQLIST-20480.TXT

<400> 10216

```

Met Thr Tyr Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met Asn Tyr
1      5      10      15
Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu Ala Ile
20      25      30
Arg His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys His Ala
35      40      45
Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly Phe Ser
50      55      60
Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp Thr Glu
65      70      75      80
Asn Asn Thr Glu Phe Thr Arg Val Asn Ala Lys Pro Pro Pro Gly Asp
85      90      95
Gln Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro Trp Asn
100     105     110
Val Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu Lys Gly
115     120     125
Leu Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe Glu Leu
130     135     140
Thr Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr Cys Cys
145     150     155     160
Leu Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp Thr Tyr
165     170     175
Ala Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn Pro Phe
180     185     190
Met Ile Asp Val Gln Gln Trp Gly Phe Thr Gly Asn Leu Gln Ser Asn
195     200     205
His Asp Gln His Cys Gln Val His Gly Asn Ala His Val Ala Ser Cys
210     215     220
Asp Ala Ile Met Thr Arg Cys Leu Ala Val His Glu Cys Phe Val Lys
225     230     235     240
Arg Val Asp Trp Ser Val Glu Tyr Pro Ile Ile Gly Asp Glu Leu Arg
245     250     255
Val Asn Ser Ala Cys Arg Lys Val Gln His Met Val Val Lys Ser Ala
260     265     270
Leu Leu Ala Asp Lys Phe Pro Val Leu His Asp Ile Gly Asn Pro Lys
275     280     285
Ala Ile Lys Cys Val Pro Gln Ala Glu Val Glu Trp Lys Phe Tyr Asp
290     295     300
Ala Gln Pro Cys Ser Asp Lys Ala Tyr Lys Ile Glu Glu Leu Phe Tyr
305     310     315     320
Ser Tyr Ala Ile His His Asp Lys Phe Thr Asp Gly Val Cys Leu Phe
325     330     335

```

SEQLIST-20480.TXT

Trp Asn Cys Asn Val Asp Arg Tyr Pro Ala Asn Ala Ile Val Cys Arg  
 340 345 350  
 Phe Asp Thr Arg Val Leu Ser Asn Leu Asn Leu Pro Gly Cys Asp Gly  
 355 360 365  
 Gly Ser Leu Tyr Val Asn Lys His Ala Phe His Thr Pro Ala Phe Asp  
 370 375 380  
 Lys Ser Ala Phe Thr Asn Leu Lys Gln Leu Pro Phe Phe Tyr Tyr Ser  
 385 390 395 400  
 Asp Ser Pro Cys Glu Ser His Gly Lys Gln Val Val Ser Asp Ile Asp  
 405 410 415  
 Tyr Val Pro Leu Lys Ser Ala Thr Cys Ile Thr Arg Cys Asn Leu Gly  
 420 425 430  
 Gly Ala Val Cys Arg His His Ala Asn Glu Tyr Arg Gln Tyr Leu Asp  
 435 440 445  
 Ala Tyr Asn Met Met Ile Ser Ala Gly Phe Ser Leu Trp Ile Tyr Lys  
 450 455 460  
 Gln Phe Asp Thr Tyr Asn Leu Trp Asn Thr Phe Thr Arg Leu Gln Ser  
 465 470 475 480  
 Leu Glu Asn Val Val Tyr Asn Leu Val Lys Thr Gly His Tyr Thr Gly  
 485 490 495  
 Gln Ala Gly Glu Met Pro Cys Ala Ile Ile Asn Asp Lys Val Val Ala  
 500 505 510  
 Lys Ile Asp Lys Glu Asp Val Val Ile Phe Ile Asn Asn Thr Thr Tyr  
 515 520 525  
 Pro Thr Asn Val Ala Val Glu Leu Phe Ala Lys Arg Ser Ile Arg His  
 530 535 540  
 His Pro Glu Leu Lys Leu Phe Arg Asn Leu Asn Ile Asp Val Cys Trp  
 545 550 555 560  
 Lys His Val Ile Trp Asp Tyr Ala Arg Glu Ser Ile Phe Cys Ser Asn  
 565 570 575  
 Thr Tyr Gly Val Cys Met Tyr Thr Asp Leu Lys Phe Ile Asp Lys Leu  
 580 585 590  
 Asn Val Leu Phe Asp Gly Arg Asp Asn Gly Ala Leu Glu Ala Phe Lys  
 595 600 605  
 Arg Ser Asn Asn Gly Val Tyr Ile Ser Thr Thr Lys Val Lys Ser Leu  
 610 615 620  
 Ser Met Ile Lys Gly Pro Pro Arg Ala Glu Leu Asn Gly Val Val Val  
 625 630 635 640  
 Asp Lys Val Gly Asp Thr Asp Cys Val Phe Tyr Phe Ala Val Arg Lys  
 645 650 655  
 Glu Gly Gln Asp Val Ile Phe Ser Gln Phe Asp Ser Leu Arg Val Ser  
 660 665 670

SEQLIST-20480.TXT

Ser Asn Gln Ser Pro Gln Gly Asn Leu Gly Ser Asn Glu Pro Gly Asn  
675 680 685  
Val Gly Gly Asn Asp Ala Leu Ala Thr Ser Thr Ile Phe Thr Gln Ser  
690 695 700  
Arg Val Ile Ser Ser Phe Thr Cys Arg Thr Asp Met Glu Lys Asp Phe  
705 710 715 720  
Ile Ala Leu Asp Gln Asp Leu Phe Ile Gln Lys Tyr Gly Leu Glu Asp  
725 730 735  
Tyr Ala Phe Glu His Ile Val Tyr Gly Asn Phe Asn Gln Lys Ile Ile  
740 745 750  
Gly Gly Leu His Leu Leu Ile Gly Leu Tyr Arg Arg Gln Gln Thr Ser  
755 760 765  
Asn Leu Val Ile Gln Glu Phe Val Ser Tyr Asp Ser Ser Ile His Ser  
770 775 780  
Tyr Phe Ile Thr Asp Glu Lys Ser Gly Gly Ser Lys Ser Val Cys Thr  
785 790 795 800  
Val Ile Asp Ile Leu Leu Asp Asp Phe Val Ala Leu Val Lys Ser Leu  
805 810 815  
Asn Leu Asn Cys Val Ser Lys Val Val Asn Val Asn Val Asp Phe Lys  
820 825 830  
Asp Phe Gln Phe Met Leu Trp Cys Asn Asp Glu Lys Val Met Thr Phe  
835 840 845  
Tyr Pro Arg Leu Gln Ala Ala Ser Asp Trp Lys Pro Gly Tyr Ser Met  
850 855 860  
Pro Val Leu Tyr Lys Tyr Leu Asn Ser Pro Met Glu Arg Val Ser Leu  
865 870 875 880  
Trp Asn Tyr Gly Lys Pro Val Thr Leu Pro Thr Gly Cys Met Met Asn  
885 890 895  
Val Ala Lys Tyr Thr Gln Leu Cys Gln Tyr Leu Asn Thr Thr Thr Leu  
900 905 910  
Ala Val Pro Val Asn Met Arg Val Leu His Leu Gly Ala Gly Ser Glu  
915 920 925  
Lys Gly Val Ala Pro Gly Ser Ala Val Leu Arg Gln Trp Leu Pro Ala  
930 935 940  
Gly Thr Ile Leu Val Asp Asn Asp Leu Tyr Pro Phe Val Ser Asp Ser  
945 950 955 960  
Val Ala Thr Tyr Phe Gly Asp Cys Ile Thr Leu Pro Phe Asp Cys Gln  
965 970 975  
Trp Asp Leu Ile Ile Ser Asp Met Tyr Asp Pro Ile Thr Lys Asn Ile  
980 985 990  
Gly Glu Tyr Asn Val Ser Lys Asp Gly Phe Phe Thr Tyr Ile Cys His  
995 1000 1005



SEQLIST-20480.TXT

Met Ile Arg Asp Lys Leu Ala Leu Gly Gly Ser Val Ala Ile Lys Ile  
1010 1015 1020  
Thr Glu Phe Ser Trp Asn Ala Glu Leu Tyr Lys Leu Met Gly Tyr Phe  
1025 1030 1035 1040  
Ala Phe Trp Thr Val Phe Cys Thr Asn Ala Asn Ala Ser Ser Ser Glu  
1045 1050 1055  
Gly Phe Leu Ile Gly Ile Asn Tyr Leu Gly Lys Pro Lys Val Glu Ile  
1060 1065 1070  
Asp Gly Asn Val Met His Ala Asn Tyr Leu Phe Trp Arg Asn Ser Thr  
1075 1080 1085  
Val Trp Asn Gly Gly Ala Tyr Ser Leu Phe Asp Met Ala Lys Phe Pro  
1090 1095 1100  
Leu Lys Leu Ala Gly Thr Ala Val Ile Asn Leu Arg Ala Asp Gln Ile  
1105 1110 1115 1120  
Asn Asp Met Val Tyr Ser Leu Leu Glu Lys Gly Lys Leu Leu Val Arg  
1125 1130 1135  
Asp Thr Asn Lys Glu Val Phe Val Gly Asp Ser Leu Val Asn Val Ile  
1140 1145 1150

<210> 10217  
<211> 671  
<212> PRT  
<213> Bovine coronavirus

<400> 10217  
Glu Asn Val Val Tyr Asn Leu Val Lys Thr Gly His Tyr Thr Gly Gln  
1 5 10 15  
Ala Gly Glu Met Pro Cys Ala Ile Ile Asn Asp Lys Val Val Ala Lys  
20 25 30  
Ile Asp Lys Glu Asp Val Val Ile Phe Ile Asn Asn Thr Thr Tyr Pro  
35 40 45  
Thr Asn Val Ala Val Glu Leu Phe Ala Lys Arg Ser Ile Arg His His  
50 55 60  
Pro Glu Leu Lys Leu Phe Arg Asn Leu Asn Ile Asp Val Cys Trp Lys  
65 70 75 80  
His Val Ile Trp Asp Tyr Ala Arg Glu Ser Ile Phe Cys Ser Asn Thr  
85 90 95  
Tyr Gly Val Cys Met Tyr Thr Asp Leu Lys Phe Ile Asp Lys Leu Asn  
100 105 110  
Val Leu Phe Asp Gly Arg Asp Asn Gly Ala Leu Glu Ala Phe Lys Arg  
115 120 125  
Ser Asn Asn Gly Val Tyr Ile Ser Thr Thr Lys Val Lys Ser Leu Ser  
130 135 140  
Met Ile Lys Gly Pro Pro Arg Ala Glu Leu Asn Gly Val Val Val Asp

SEQLIST-20480.TXT

145		150		155		160
Lys Val Gly Asp Thr	Asp Cys Val Phe Tyr	Phe Ala Val Arg Lys	Glu			
	165		170			175
Gly Gln Asp Val Ile Phe Ser Gln Phe	Asp Ser Leu Arg Val Ser Ser					
	180		185		190	
Asn Gln Ser Pro Gln Gly Asn Leu Gly Ser Asn Glu Pro Gly Asn Val						
	195		200		205	
Gly Gly Asn Asp Ala Leu Ala Thr Ser Thr Ile Phe Thr Gln Ser Arg						
	210		215		220	
Val Ile Ser Ser Phe Thr Cys Arg Thr Asp Met Glu Lys Asp Phe Ile						
	225		230		235	240
Ala Leu Asp Gln Asp Leu Phe Ile Gln Lys Tyr Gly Leu Glu Asp Tyr						
	245		250		255	
Ala Phe Glu His Ile Val Tyr Gly Asn Phe Asn Gln Lys Ile Ile Gly						
	260		265		270	
Gly Leu His Leu Leu Ile Gly Leu Tyr Arg Arg Gln Gln Thr Ser Asn						
	275		280		285	
Leu Val Ile Gln Glu Phe Val Ser Tyr Asp Ser Ser Ile His Ser Tyr						
	290		295		300	
Phe Ile Thr Asp Glu Lys Ser Gly Gly Ser Lys Ser Val Cys Thr Val						
	305		310		315	320
Ile Asp Ile Leu Leu Asp Asp Phe Val Ala Leu Val Lys Ser Leu Asn						
	325		330		335	
Leu Asn Cys Val Ser Lys Val Val Asn Val Asn Val Asp Phe Lys Asp						
	340		345		350	
Phe Gln Phe Met Leu Trp Cys Asn Asp Glu Lys Val Met Thr Phe Tyr						
	355		360		365	
Pro Arg Leu Gln Ala Ala Ser Asp Trp Lys Pro Gly Tyr Ser Met Pro						
	370		375		380	
Val Leu Tyr Lys Tyr Leu Asn Ser Pro Met Glu Arg Val Ser Leu Trp						
	385		390		395	400
Asn Tyr Gly Lys Pro Val Thr Leu Pro Thr Gly Cys Met Met Asn Val						
	405		410		415	
Ala Lys Tyr Thr Gln Leu Cys Gln Tyr Leu Asn Thr Thr Thr Leu Ala						
	420		425		430	
Val Pro Val Asn Met Arg Val Leu His Leu Gly Ala Gly Ser Glu Lys						
	435		440		445	
Gly Val Ala Pro Gly Ser Ala Val Leu Arg Gln Trp Leu Pro Ala Gly						
	450		455		460	
Thr Ile Leu Val Asp Asn Asp Leu Tyr Pro Phe Val Ser Asp Ser Val						
	465		470		475	480
Ala Thr Tyr Phe Gly Asp Cys Ile Thr Leu Pro Phe Asp Cys Gln Trp						

SEQLIST-20480.TXT

485

490

495

Asp Leu Ile Ile Ser Asp Met Tyr Asp Pro Ile Thr Lys Asn Ile Gly  
500 505 510  
Glu Tyr Asn Val Ser Lys Asp Gly Phe Phe Thr Tyr Ile Cys His Met  
515 520 525  
Ile Arg Asp Lys Leu Ala Leu Gly Gly Ser Val Ala Ile Lys Ile Thr  
530 535 540  
Glu Phe Ser Trp Asn Ala Glu Leu Tyr Lys Leu Met Gly Tyr Phe Ala  
545 550 555 560  
Phe Trp Thr Val Phe Cys Thr Asn Ala Asn Ala Ser Ser Ser Glu Gly  
565 570 575  
Phe Leu Ile Gly Ile Asn Tyr Leu Gly Lys Pro Lys Val Glu Ile Asp  
580 585 590  
Gly Asn Val Met His Ala Asn Tyr Leu Phe Trp Arg Asn Ser Thr Val  
595 600 605  
Trp Asn Gly Gly Ala Tyr Ser Leu Phe Asp Met Ala Lys Phe Pro Leu  
610 615 620  
Lys Leu Ala Gly Thr Ala Val Ile Asn Leu Arg Ala Asp Gln Ile Asn  
625 630 635 640  
Asp Met Val Tyr Ser Leu Leu Glu Lys Gly Lys Leu Leu Val Arg Asp  
645 650 655  
Thr Asn Lys Glu Val Phe Val Gly Asp Ser Leu Val Asn Val Ile  
660 665 670

<210> 10218  
<211> 4  
<212> PRT  
<213> SARS coronavirus

<400> 10218  
Asn Asn Thr Glu  
1

<210> 10219  
<211> 4  
<212> PRT  
<213> SARS coronavirus

<400> 10219  
Asn His Ser Val  
1

<210> 10220  
<211> 93  
<212> PRT  
<213> SARS coronavirus

<400> 10220  
Met Tyr Ser Ile Arg Ile Glu Glu Phe Leu Tyr Phe Val Ser Phe Val  
1 5 10 15  
Thr Thr Trp Leu Ser Ile Val Glu Leu Pro Phe Tyr Phe Ser Leu Arg

SEQLIST-20480.TXT

20

25

30

His Thr Leu Asp Ser Leu Trp Ile Ser Tyr Val Met Lys Asn Trp Lys  
 35 40 45  
 Leu Ile Ser Lys Gln Cys Arg Leu His Asn His Val Leu Tyr Phe Ser  
 50 55 60  
 Ala Ser Arg Ile Asn Pro Gln Phe Ile Ser Tyr Asn Arg Val Phe Asn  
 65 70 75 80  
 Arg Pro Ile Asn Ala Leu Asn Lys Ala Leu Met Asp Cys  
 85 90

<210> 10221  
 <211> 50  
 <212> PRT  
 <213> SARS coronavirus

<400> 10221  
 Met Lys Asn Trp Lys Leu Ile Ser Lys Gln Cys Arg Leu His Asn His  
 1 5 10 15  
 Val Leu Tyr Phe Ser Ala Ser Arg Ile Asn Pro Gln Phe Ile Ser Tyr  
 20 25 30  
 Asn Arg Val Phe Asn Arg Pro Ile Asn Ala Leu Asn Lys Ala Leu Met  
 35 40 45  
 Asp Cys  
 50

<210> 10222  
 <211> 47  
 <212> PRT  
 <213> SARS coronavirus

<400> 10222  
 Met Cys Ile Ser Met Tyr Leu Ala Met Leu Val Met Val Thr Leu Lys  
 1 5 10 15  
 Val Thr Arg Lys Ala Pro Leu Leu Asn Ile Asn His Lys Trp Val Ile  
 20 25 30  
 Asp Ile Val Lys Thr His Arg Met Ile Pro Ala Gly Ile Ser Ile  
 35 40 45

<210> 10223  
 <211> 43  
 <212> PRT  
 <213> SARS coronavirus

<400> 10223  
 Met Tyr Leu Ala Met Leu Val Met Val Thr Leu Lys Val Thr Arg Lys  
 1 5 10 15  
 Ala Pro Leu Leu Asn Ile Asn His Lys Trp Val Ile Asp Ile Val Lys  
 20 25 30  
 Thr His Arg Met Ile Pro Ala Gly Ile Ser Ile  
 35 40

<210> 10224

SEQLIST-20480.TXT

<211> 39  
<212> PRT  
<213> SARS coronavirus

<400> 10224  
Met Leu Val Met Val Thr Leu Lys Val Thr Arg Lys Ala Pro Leu Leu  
1 5 10 15  
Asn Ile Asn His Lys Trp Val Ile Asp Ile Val Lys Thr His Arg Met  
20 25 30  
Ile Pro Ala Gly Ile Ser Ile  
35

<210> 10225  
<211> 36  
<212> PRT  
<213> SARS coronavirus

<400> 10225  
Met Val Thr Leu Lys Val Thr Arg Lys Ala Pro Leu Leu Asn Ile Asn  
1 5 10 15  
His Lys Trp Val Ile Asp Ile Val Lys Thr His Arg Met Ile Pro Ala  
20 25 30  
Gly Ile Ser Ile  
35

<210> 10226  
<211> 31  
<212> PRT  
<213> SARS coronavirus

<400> 10226  
Met Phe Lys Leu Val Thr Trp Trp Arg Phe Cys Ile Asn Ser Gly Glu  
1 5 10 15  
Phe Cys Val Ile Phe Ser Val Asn Ile Thr Ser Arg Tyr Ser Tyr  
20 25 30

<210> 10227  
<211> 54  
<212> PRT  
<213> SARS coronavirus

<400> 10227  
Met Thr Ala Leu Tyr Ile Lys Ala Asn Pro Arg Thr Asn Val Thr Asn  
1 5 10 15  
Ser Phe Phe Ala Gly Asp Lys His Ile Arg Val Thr Ile Asp Leu Val  
20 25 30  
Ile His Phe Glu Thr His His Arg Asp Glu Ser Thr Val Gly His Val  
35 40 45  
Leu Trp Val Cys Leu Gly  
50

<210> 10228  
<211> 61  
<212> PRT  
<213> SARS coronavirus

SEQLIST-20480.TXT

<400> 10228  
 Met Cys Cys Thr Phe Leu Gln Ala Glu Leu Thr Leu Ser Ser Ser Pro  
 1 5 10 15  
 Ile Ile Gly Tyr Ser Thr Asp Gln Ser Thr Arg Leu Thr Lys His Ser  
 20 25 30  
 Trp Thr Ala Lys His Leu Val Met Ile Ala Ser Gln Leu Ala Thr Cys  
 35 40 45  
 Ala Phe Pro Cys Thr Trp Gln Cys Trp Ser Trp Leu Leu  
 50 55 60

<210> 10229  
 <211> 29  
 <212> PRT  
 <213> SARS coronavirus

<400> 10229  
 Met Ser Gly Ile Arg Cys Leu Asn Trp Ser Pro Gly Gly Gly Phe Ala  
 1 5 10 15  
 Leu Thr Leu Val Asn Ser Val Leu Phe Ser Val Ser Thr  
 20 25

<210> 10230  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10230  
 gggttgggac taccctaagt gtga 24

<210> 10231  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<220>  
 <221> misc\_feature  
 <222> 12  
 <223> N is I (inosine)

<400> 10231  
 taacacacaa cncatcatc a 21

<210> 10232  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10232  
 ctaacatgct taggataatg g 21

SEQLIST-20480.TXT

```

<210> 10233
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10233
gcctctcttg ttcttgctcg c 21

<210> 10234
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10234
caggtaagcg taaaactcat c 21

<210> 10235
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10235
aagaagctat tcgtcacgtt cgtg 24

<210> 10236
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10236
gtgctttgtt aagcgcgttg a 21

<210> 10237
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10237
ctattcgtca cggtcgtgcg t 21

<210> 10238
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

```

SEQLIST-20480.TXT

<400>	10238	
acaccatgca aatgagtacc gac		23
<210>	10239	
<211>	24	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10239	
ccaaaggaca tgacctaccg taga		24
<210>	10240	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10240	
tgccctggaa tgtagtgcgt a		21
<210>	10241	
<211>	27	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10241	
aggctgaagt agaatggaag ttctacg		27
<210>	10242	
<211>	26	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10242	
tgtttgtttg ttttggaatt gtaacg		26
<210>	10243	
<211>	27	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10243	
gtgtttgttt gttttggaat tgtaacg		27
<210>	10244	
<211>	24	
<212>	DNA	
<213>	Artificial Sequence	



SEQLIST-20480.TXT

```

<220>
<223>   Primer

<400>   10244
agtcctagag tgctttgtta agcg                24

<210>   10245
<211>   23
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10245
gtccatgagt gctttgttaa gcg                23

<210>   10246
<211>   22
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10246
atgagtgcctt tgttaagcgc gt                22

<210>   10247
<211>   27
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10247
tttgagtgga acataatcaa tatccga            27

<210>   10248
<211>   21
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10248
cagaccaatc aacgcgctta a                21

<210>   10249
<211>   22
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10249
aacagaccaa tcaacgcgct ta                22

<210>   10250

```

```

<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10250
tcagtgtcaa cataaccagt cggtag                26

<210> 10251
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10251
aaccatcat agatgagt ctacggt                27

<210> 10252
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10252
catggttact ctgaaggta cccgt                25

<210> 10253
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10253
cactacatgg ctgagcatcg taga                24

<210> 10254
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10254
ttcagtgtca acataaccag tcggta                26

<210> 10255
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10255

```

ttgagtggaa cataatcaat atccgac	SEQLIST-20480.TXT	27
<210> 10256		
<211> 24		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10256		
gtcactacat ggctgagcat cgta		24
<210> 10257		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10257		
cagaccaatc aacgcgctta ac		22
<210> 10258		
<211> 21		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10258		
acgcacgaac gtgacgaata g		21
<210> 10259		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10259		
aagtagtgtc ggatattgat ta		22
<210> 10260		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10260		
tgtcggatat tgattatggt cc		22
<210> 10261		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		

<223> Primer

<400> 10261  
agtagtgtcg gatattgatt at 22

<210> 10262  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10262  
tgtagtgcgt attaagatag ta 22

<210> 10263  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10263  
aagtagtgtc ggatattgat tat 23

<210> 10264  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10264  
caagtagtgt cggatattga tt 22

<210> 10265  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10265  
gtgtcggata ttgattatgt tc 22

<210> 10266  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10266  
agtgtcggat attgattatg ttc 23

<210> 10267  
<211> 23  
<212> DNA

```

<213> Artificial Sequence
<220>
<223> Primer
<400> 10267
caagtagtgt cggatattga tta 23
<210> 10268
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10268
gtagtgtcgg atattgatta tg 22
<210> 10269
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10269
gtgtcggata ttgattatgt tcc 23
<210> 10270
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10270
tagtgtcggga tattgattat gttc 24
<210> 10271
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10271
caagtagtgt cggatattga ttat 24
<210> 10272
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10272
ggctgaagta gaatggaagt 20

```

```

<210> 10273
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10273
aatgtagtgc gtattaagat ag 22

<210> 10274
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10274
atgtagtgcg tattaagata gt 22

<210> 10275
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10275
ggaatgtagt gcgtattaag a 21

<210> 10276
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10276
atgtagtgcg tattaagata gta 23

<210> 10277
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10277
cagagtcgtg ttcgtcct 18

<210> 10278
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

```

<400>	10278	
ggaatgtagt gcgtattaag at		22
<210>	10279	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10279	
aatgtagtgc gtattaagat agt		23
<210>	10280	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10280	
aagtagtgtc ggatattgat t		21
<210>	10281	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10281	
gaatgtagtg cgtattaaga tag		23
<210>	10282	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10282	
aacataatca atatccgaca ct		22
<210>	10283	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10283	
aacataatca atatccgaca cta		23
<210>	10284	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	





<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10290	
	gatgtatagc ataagaatag aagag	25
<210>	10291	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10291	
	tgatgtatag cataagaata gaaga	25
<210>	10292	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10292	
	caatcaacgc gcttaaca	18
<210>	10293	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10293	
	acataatcaa tatccgacac tac	23
<210>	10294	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10294	
	tgatgtatag cataagaata gaa	23
<210>	10295	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10295	
	caatcaacgc gcttaacaa	19

SEQLIST-20480.TXT

```

<210> 10296
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10296
atcttaatac gcactacatt cc 22

<210> 10297
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10297
ctatcttaat acgcactaca ttc 23

<210> 10298
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10298
tcttaatacg cactacattc c 21

<210> 10299
<211> 403
<212> DNA
<213> SARS coronavirus

<400> 10299
caggttcatc aaaatgtgtg tgttctgtga ttgatctttt acttgatgac tttgtcgaga 60
taataaaagtc acaagatttg tcagtgattt caaaaagtgg caagggttaca attgactatg 120
ctgaaatttc attcatgctt tgggtgaagg atggacatgt tgaaaccttc taccctaaac 180
tacaagcaag tcaagcgtgg caaccagggtg ttgcatgccc taacttgtag aagatgcaaa 240
gaatgcttct tgaaaagtgt gaccttcaga attatgggtga aaatgctgtt ataccctaaag 300
gaataatgat gaatgtcgca aagtatactc aactgtgtca atacttaaat acacttactt 360
tagctgtacc ctccaacatg agagttattc actttggtgc tgg 403

<210> 10300
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Inferred translation product

<400> 10300
Gln Val His Gln Asn Val Cys Val Leu
1 5

<210> 10301
<211> 10
<212> PRT

```

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10301

Leu Ile Phe Tyr Leu Met Thr Leu Ser Arg  
1 5 10

<210> 10302

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10302

Ser His Lys Ile Cys Gln  
1 5

<210> 10303

<211> 72

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10303

Phe Gln Lys Trp Ser Arg Leu Gln Leu Thr Met Leu Lys Phe His Ser  
1 5 10 15

Cys Phe Gly Val Arg Met Asp Met Leu Lys Pro Ser Thr Gln Asn Tyr  
20 25 30

Lys Gln Val Lys Arg Gly Asn Gln Val Leu Arg Cys Leu Thr Cys Thr  
35 40 45

Arg Cys Lys Glu Cys Phe Leu Lys Ser Val Thr Phe Arg Ile Met Val  
50 55 60

Lys Met Leu Leu Tyr Gln Lys Glu  
65 70

<210> 10304

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10304

Met Ser Gln Ser Ile Leu Asn Cys Val Asn Thr  
1 5 10

<210> 10305

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10305  
Ile His Leu Leu  
1

<210> 10306  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10306  
Leu Tyr Pro Pro Thr  
1 5

<210> 10307  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10307  
Glu Leu Phe Thr Leu Val Leu  
1 5

<210> 10308  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10308  
Arg Phe Ile Lys Met Cys Val Phe Cys Asp  
1 5 10

<210> 10309  
<211> 21  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10309  
Leu Cys Arg Asp Asn Lys Val Thr Arg Phe Val Ser Asp Phe Lys Ser  
1 5 10 15

Gly Gln Gly Tyr Asn  
20

<210> 10310  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10310  
Asn Phe Ile His Ala Leu Val  
1 5

<210> 10311  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10311  
Gly Trp Thr Cys  
1

<210> 10312  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10312  
Asn Leu Leu Pro Lys Thr Thr Ser Lys Ser Ser Val Ala Thr Arg Cys  
1 5 10 15

Cys Asp Ala

<210> 10313  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10313  
Leu Val Gln Asp Ala Lys Asn Ala Ser  
1 5

<210> 10314  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10314  
Pro Ser Glu Leu Trp  
1 5

<210> 10315  
<211> 41  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10315

Lys Cys Cys Tyr Thr Lys Arg Asn Asn Asp Glu Cys Arg Lys Val Tyr  
1 5 10 15

Ser Thr Val Ser Ile Leu Lys Tyr Thr Tyr Phe Ser Cys Thr Leu Gln  
20 25 30

His Glu Ser Tyr Ser Leu Trp Cys Trp  
35 40

<210> 10316

<211> 134

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10316

Gly Ser Ser Lys Cys Val Cys Ser Val Ile Asp Leu Leu Leu Asp Asp  
1 5 10 15

Phe Val Glu Ile Ile Lys Ser Gln Asp Leu Ser Val Ile Ser Lys Val  
20 25 30

Val Lys Val Thr Ile Asp Tyr Ala Glu Ile Ser Phe Met Leu Trp Cys  
35 40 45

Lys Asp Gly His Val Glu Thr Phe Tyr Pro Lys Leu Gln Ala Ser Gln  
50 55 60

Ala Trp Gln Pro Gly Val Ala Met Pro Asn Leu Tyr Lys Met Gln Arg  
65 70 75 80

Met Leu Leu Glu Lys Cys Asp Leu Gln Asn Tyr Gly Glu Asn Ala Val  
85 90 95

Ile Pro Lys Gly Ile Met Met Asn Val Ala Lys Tyr Thr Gln Leu Cys  
100 105 110

Gln Tyr Leu Asn Thr Leu Thr Leu Ala Val Pro Ser Asn Met Arg Val  
115 120 125

Ile His Phe Gly Ala Gly  
130

<210> 10317

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10317

Pro Ala Pro Lys  
1

<210> 10318

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10318

Ile Thr Leu Met Leu Glu Gly Thr Ala Lys Val Ser Val Phe Lys Tyr  
1 5 10 15

<210> 10319

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10319

Val Tyr Phe Ala Thr Phe Ile Ile Ile Pro Phe Gly Ile Thr Ala Phe  
1 5 10 15

Ser Pro

<210> 10320

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10320

Arg Ser His Phe Ser Arg Ser Ile Leu Cys Ile Leu Tyr Lys Leu Gly  
1 5 10 15

Ile Ala Thr Pro Gly Cys His Ala  
20

<210> 10321

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10321

Leu Ala Cys Ser Phe Gly  
1 5

<210> 10322

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10322

Lys Val Ser Thr Cys Pro Ser Leu His Gln Ser Met Asn Glu Ile Ser  
1 5 10 15

SEQLIST-20480.TXT

Ala

<210> 10323  
 <211> 38  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Inferred translation product

<400> 10323  
 Ser Ile Val Thr Leu Thr Thr Phe Glu Ile Thr Asp Lys Ser Cys Asp  
 1 5 10 15  
 Phe Ile Ile Ser Thr Lys Ser Ser Ser Lys Arg Ser Ile Thr Glu His  
 20 25 30  
 Thr His Phe Asp Glu Pro  
 35

<210> 10324  
 <211> 5  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Inferred translation product

<400> 10324  
 Gln His Gln Ser Glu  
 1 5

<210> 10325  
 <211> 9  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Inferred translation product

<400> 10325  
 Leu Ser Cys Trp Arg Val Gln Leu Lys  
 1 5

<210> 10326  
 <211> 21  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Inferred translation product

<400> 10326  
 Val Tyr Leu Ser Ile Asp Thr Val Glu Tyr Thr Leu Arg His Ser Ser  
 1 5 10 15  
 Leu Phe Leu Leu Val  
 20

<210> 10327  
 <211> 22



<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10327  
Gln His Phe His His Asn Ser Glu Gly His Thr Phe Gln Glu Ala Phe  
1 5 10 15  
Phe Ala Ser Cys Thr Ser  
20

<210> 10328  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10328  
Ala Ser Gln His Leu Val Ala Thr Leu Asp Leu Leu Val Val Leu Gly  
1 5 10 15  
Arg Arg Phe Gln His Val His Pro Tyr Thr Lys Ala  
20 25

<210> 10329  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10329  
Met Lys Phe Gln His Ser Gln Leu  
1 5

<210> 10330  
<211> 33  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10330  
Pro Leu Leu Lys Ser Leu Thr Asn Leu Val Thr Leu Leu Ser Arg Gln  
1 5 10 15  
Ser His Gln Val Lys Asp Gln Ser Gln Asn Thr His Ile Leu Met Asn  
20 25 30

Leu

<210> 10331  
<211> 13  
<212> PRT  
<213> Artificial Sequence

SEQLIST-20480.TXT

<220>

<223> Inferred translation product

<400> 10331

Ser Thr Lys Val Asn Asn Ser His Val Gly Gly Tyr Ser  
1 5 10

<210> 10332

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10332

Ser Lys Cys Ile  
1

<210> 10333

<211> 54

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10333

Val Leu Thr Gln Leu Ser Ile Leu Cys Asp Ile His His Tyr Ser Phe  
1 5 10 15

Trp Tyr Asn Ser Ile Phe Thr Ile Ile Leu Lys Val Thr Leu Phe Lys  
20 25 30

Lys His Ser Leu His Leu Val Gln Val Arg His Arg Asn Thr Trp Leu  
35 40 45

Pro Arg Leu Thr Cys Leu  
50

<210> 10334

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10334

Phe Trp Val Glu Gly Phe Asn Met Ser Ile Leu Thr Pro Lys His Glu  
1 5 10 15

<210> 10335

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10335

Asn Phe Ser Ile Val Asn Cys Asn Leu Asp His Phe

```

1          5          10
<210>      10336
<211>      9
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10336
Leu Tyr Tyr Leu Asp Lys Val Ile Lys
1          5

<210>      10337
<211>      9
<212>      PRT
<213>      Artificial Sequence

<220>
<223>      Inferred translation product

<400>      10337
Lys Ile Asn His Arg Thr His Thr Phe
1          5

<210>      10338
<211>      90
<212>      PRT
<213>      SARS coronavirus

<400>      10338
Met Leu Trp Cys Lys Asp Gly His Val Glu Thr Phe Tyr Pro Lys Leu
1          5          10          15
Gln Ala Ser Gln Ala Trp Gln Pro Gly Val Ala Met Pro Asn Leu Tyr
          20          25          30
Lys Met Gln Arg Met Leu Leu Glu Lys Cys Asp Leu Gln Asn Tyr Gly
          35          40          45
Glu Asn Ala Val Ile Pro Lys Gly Ile Met Met Asn Val Ala Lys Tyr
          50          55          60
Thr Gln Leu Cys Gln Tyr Leu Asn Thr Leu Thr Leu Ala Val Pro Ser
65          70          75          80
Asn Met Arg Val Ile His Phe Gly Ala Gly
          85          90

<210>      10339
<211>      109
<212>      PRT
<213>      SARS coronavirus

<400>      10339
Met Ser Val Ile Ser Lys Val Val Lys Val Thr Ile Asp Tyr Ala Glu
1          5          10          15
Ile Ser Phe Met Leu Trp Cys Lys Asp Gly His Val Glu Thr Phe Tyr
          20          25          30
Pro Lys Leu Gln Ala Ser Gln Ala Trp Gln Pro Gly Val Ala Met Pro

```

SEQLIST-20480.TXT

35

40

45

Asn Leu Tyr Lys Met Gln Arg Met Leu Leu Glu Lys Cys Asp Leu Gln  
50 55 60

Asn Tyr Gly Glu Asn Ala Val Ile Pro Lys Gly Ile Met Met Asn Val  
65 70 75 80

Ala Lys Tyr Thr Gln Leu Cys Gln Tyr Leu Asn Thr Leu Thr Leu Ala  
85 90 95

Val Pro Ser Asn Met Arg Val Ile His Phe Gly Ala Gly  
100 105

<210> 10340

<211> 62

<212> PRT

<213> SARS coronavirus

<400> 10340

Met Leu Lys Phe His Ser Cys Phe Gly Val Arg Met Asp Met Leu Lys  
1 5 10 15

Pro Ser Thr Gln Asn Tyr Lys Gln Val Lys Arg Gly Asn Gln Val Leu  
20 25 30

Arg Cys Leu Thr Cys Thr Arg Cys Lys Glu Cys Phe Leu Lys Ser Val  
35 40 45

Thr Phe Arg Ile Met Val Lys Met Leu Leu Tyr Gln Lys Glu  
50 55 60

<210> 10341

<211> 34

<212> PRT

<213> SARS coronavirus

<400> 10341

Met Thr Thr Phe Glu Ile Thr Asp Lys Ser Cys Asp Phe Ile Ile Ser  
1 5 10 15

Thr Lys Ser Ser Ser Lys Arg Ser Ile Thr Glu His Thr His Phe Asp  
20 25 30

Glu Pro

<210> 10342

<211> 31

<212> PRT

<213> SARS coronavirus

<400> 10342

Met Lys Ser Leu Thr Asn Leu Val Thr Leu Leu Ser Arg Gln Ser His  
1 5 10 15

Gln Val Lys Asp Gln Ser Gln Asn Thr His Ile Leu Met Asn Leu  
20 25 30

<210> 10343

<211> 89

<212> PRT

<213> SARS coronavirus

SEQLIST-20480.TXT

<400> 10343  
 Leu Trp Cys Lys Asp Gly His Val Glu Thr Phe Tyr Pro Lys Leu Gln  
 1 5 10 15  
 Ala Ser Gln Ala Trp Gln Pro Gly Val Ala Met Pro Asn Leu Tyr Lys  
 20 25 30  
 Met Gln Arg Met Leu Leu Glu Lys Cys Asp Leu Gln Asn Tyr Gly Glu  
 35 40 45  
 Asn Ala Val Ile Pro Lys Gly Ile Met Met Asn Val Ala Lys Tyr Thr  
 50 55 60  
 Gln Leu Cys Gln Tyr Leu Asn Thr Leu Thr Leu Ala Val Pro Ser Asn  
 65 70 75 80  
 Met Arg Val Ile His Phe Gly Ala Gly  
 85

<210> 10344  
 <211> 108  
 <212> PRT  
 <213> SARS coronavirus

<400> 10344  
 Ser Val Ile Ser Lys Val Val Lys Val Thr Ile Asp Tyr Ala Glu Ile  
 1 5 10 15  
 Ser Phe Met Leu Trp Cys Lys Asp Gly His Val Glu Thr Phe Tyr Pro  
 20 25 30  
 Lys Leu Gln Ala Ser Gln Ala Trp Gln Pro Gly Val Ala Met Pro Asn  
 35 40 45  
 Leu Tyr Lys Met Gln Arg Met Leu Leu Glu Lys Cys Asp Leu Gln Asn  
 50 55 60  
 Tyr Gly Glu Asn Ala Val Ile Pro Lys Gly Ile Met Met Asn Val Ala  
 65 70 75 80  
 Lys Tyr Thr Gln Leu Cys Gln Tyr Leu Asn Thr Leu Thr Leu Ala Val  
 85 90 95  
 Pro Ser Asn Met Arg Val Ile His Phe Gly Ala Gly  
 100 105

<210> 10345  
 <211> 61  
 <212> PRT  
 <213> SARS coronavirus

<400> 10345  
 Leu Lys Phe His Ser Cys Phe Gly Val Arg Met Asp Met Leu Lys Pro  
 1 5 10 15  
 Ser Thr Gln Asn Tyr Lys Gln Val Lys Arg Gly Asn Gln Val Leu Arg  
 20 25 30  
 Cys Leu Thr Cys Thr Arg Cys Lys Glu Cys Phe Leu Lys Ser Val Thr  
 35 40 45  
 Phe Arg Ile Met Val Lys Met Leu Leu Tyr Gln Lys Glu

50

55

60

<210> 10346  
 <211> 34  
 <212> PRT  
 <213> SARS coronavirus  
  
 <400> 10346  
 Leu Thr Thr Phe Glu Ile Thr Asp Lys Ser Cys Asp Phe Ile Ile Ser  
 1 5 10 15  
 Thr Lys Ser Ser Ser Lys Arg Ser Ile Thr Glu His Thr His Phe Asp  
 20 25 30  
 Glu Pro

<210> 10347  
 <211> 31  
 <212> PRT  
 <213> SARS coronavirus  
  
 <400> 10347  
 Leu Lys Ser Leu Thr Asn Leu Val Thr Leu Leu Ser Arg Gln Ser His  
 1 5 10 15  
 Gln Val Lys Asp Gln Ser Gln Asn Thr His Ile Leu Met Asn Leu  
 20 25 30

<210> 10348  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 10348  
 Ala Ser Gln Ala Trp  
 1 5

<210> 10349  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 10349  
 Ala Ser Arg Ala Trp  
 1 5

<210> 10350  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 10350  
 Val Pro Ser Asn Met  
 1 5

<210> 10351  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 10351  
 Val Pro Thr Asn Met

```

1          5
<210>      10352
<211>      29
<212>      DNA
<213>      Artificial Sequence

<220>
<223>      Primer

<400>      10352
tataccaaaa ggaataatga tgaatgtcg                29

<210>      10353
<211>      28
<212>      DNA
<213>      Artificial Sequence

<220>
<223>      Primer

<400>      10353
ataccaaaag gaataatgat gaatgtcg                28

<210>      10354
<211>      25
<212>      DNA
<213>      Artificial Sequence

<220>
<223>      Primer

<400>      10354
ccaaaaggaa taatgatgaa tgtcg                    25

<210>      10355
<211>      27
<212>      DNA
<213>      Artificial Sequence

<220>
<223>      Primer

<400>      10355
taccaaaagg aataatgatg aatgtcg                27

<210>      10356
<211>      26
<212>      DNA
<213>      Artificial Sequence

<220>
<223>      Primer

<400>      10356
accaaaagga ataatgatga atgtcg                26

<210>      10357
<211>      18
<212>      DNA
<213>      Artificial Sequence

<220>

```

```

<223>    Primer
<400>    10357
tggcaaccag gtgttgcg                                18
<210>    10358
<211>    17
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10358
ggcaaccagg tggtgcg                                17
<210>    10359
<211>    27
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10359
gatcttttac ttgatgactt tgtcgag                    27
<210>    10360
<211>    17
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10360
gcaaccaggt gttgcga                                17
<210>    10361
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10361
aggaataatg atgaatgtcg caa                        23
<210>    10362
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10362
aaggaataat gatgaatgtc gca                        23
<210>    10363
<211>    24
<212>    DNA

```



<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10363	
	aaaggaataa tgatgaatgt cgca	24
<210>	10364	
<211>	26	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10364	
	tcttttactt gatgactttg tcgaga	26
<210>	10365	
<211>	27	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10365	
	atcttttact tgatgacttt gtcgaga	27
<210>	10366	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10366	
	ggaataatga tgaatgtcgc aaa	23
<210>	10367	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10367	
	caaaaggaat aatgatgaat gtcgc	25
<210>	10368	
<211>	24	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10368	
	aaaaggaata atgatgaatg tcgc	24

```

<210> 10369
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10369
caaaactaca agcaagtcaa gcg                23

<210> 10370
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10370
cttttacttg atgactttgt cgagataa          28

<210> 10371
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10371
aaccaggtgt tgcgatgc                    18

<210> 10372
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10372
caaccaggtg ttgcgatgc                  19

<210> 10373
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10373
ccaggtgttg cgatgcc                    17

<210> 10374
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

```

<400>	10374	
accagggtgtt gcgatgcc		18
<210>	10375	
<211>	27	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10375	
gaattatggt gaaaatgctg ttatacc		27
<210>	10376	
<211>	28	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10376	
agaattatgg tgaaaatgct gttatacc		28
<210>	10377	
<211>	27	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10377	
cacagttgag tatactttgc gacattc		27
<210>	10378	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10378	
tacaagttag gcatcgcaac ac		22
<210>	10379	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10379	
gtacaagtta ggcacgcaa ca		22
<210>	10380	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

<220>		
<223>	Primer	
<400>	10380	
	acacagttga gtatactttg cgaca	25
<210>	10381	
<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10381	
	ctggttgccg cgcttga	17
<210>	10382	
<211>	26	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10382	
	acacagttga gtatactttg cgacat	26
<210>	10383	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10383	
	tgtacaagtt aggcacgcga ac	22
<210>	10384	
<211>	28	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10384	
	caaattcttg gactttatta tctcgaca	28
<210>	10385	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10385	
	ttgtacaagt taggcacgc aa	22
<210>	10386	
<211>	29	

```

<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10386
gacaaatctt gtgactttat tatctcgac 29

<210> 10387
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10387
tgacacagtt gagtatactt tgcgac 26

<210> 10388
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10388
tgacaaatct tgtgacttta ttatctcg 28

<210> 10389
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10389
tggttgccac gcttgac 17

<210> 10390
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10390
gacaaatctt gtgactttat tatctcga 28

<210> 10391
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10391
cacagttgag tatactttgc gacatt 26

```

SEQLIST-20480.TXT

```

<210> 10392
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10392
ttgacacagt tgagtatact ttgcg 25

<210> 10393
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10393
tgacacagtt gagtatactt tgcga 25

<210> 10394
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10394
cttgtacaag ttaggcatcg ca 22

<210> 10395
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10395
aaatcttgtg actttattat ctcgacaaa 29

<210> 10396
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10396
caacacctgg ttgccacg 18

<210> 10397
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

```

<400>	10397	
catcttgtagc aagttaggca tcgc		24
<210>	10398	
<211>	30	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10398	
gacattcatc attattcctt ttggtataac		30
<210>	10399	
<211>	26	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10399	
tgaataactc tcatgttgga gggtagc		26
<210>	10400	
<211>	29	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10400	
cgacaaagtc atcaagtaaa agatcaatc		29
<210>	10401	
<211>	24	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10401	
gcatcttgta caagttaggc atcg		24
<210>	10402	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10402	
tcaagcgtgg caacc		15
<210>	10403	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>   Primer

<400>   10403
tcactttggt gctgg                               15

<210>   10404
<211>   15
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10404
caggtgttgc gatgc                               15

<210>   10405
<211>   15
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10405
cgtggcaacc aggtg                               15

<210>   10406
<211>   15
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10406
accctccaac atgag                               15

<210>   10407
<211>   15
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10407
agcaagtcaa gcgtg                               15

<210>   10408
<211>   15
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10408
aagcgtggca accag                               15

<210>   10409

```



SEQLIST-20480.TXT

<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10409	
	ggtgttcga tgcct	15
<210>	10410	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10410	
	tggcaaccag gtgtt	15
<210>	10411	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10411	
	accagtggtt gcgat	15
<210>	10412	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10412	
	gcaagtcaag cgtgg	15
<210>	10413	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10413	
	ccaggtgttg cgatg	15
<210>	10414	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10414	

	SEQLIST-20480.TXT	
gcgtggcaac caggt		15
<210> 10415		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10415		
aaccaggtgt tgcga		15
<210> 10416		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10416		
gtcaagcgtg gcaac		15
<210> 10417		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10417		
gtgttgcat gccta		15
<210> 10418		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10418		
agcgtggcaa ccagg		15
<210> 10419		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10419		
ggcaaccagg tggtg		15
<210> 10420		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		

<223>	Primer	
<400>	10420	
	gtggcaacca ggtgt	15
<210>	10421	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10421	
	gcgatgccta acttg	15
<210>	10422	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10422	
	gttgcatgc ctaac	15
<210>	10423	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10423	
	ggtgtaagga tggac	15
<210>	10424	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10424	
	cctccaacat gagag	15
<210>	10425	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10425	
	gtaccctcca acatg	15
<210>	10426	
<211>	15	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10426	
	agctgtaccc tccaa	15
<210>	10427	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10427	
	aagtcaagcg tggca	15
<210>	10428	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10428	
	agtcaagcgt ggcaa	15
<210>	10429	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10429	
	ttagctgtac cctcc	15
<210>	10430	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10430	
	gctgtaccct ccaac	15
<210>	10431	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10431	
	ccctccaaca tgaga	15

SEQLIST-20480.TXT

<210>	10432	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10432	
	ctgtaccctc caaca	15
<210>	10433	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10433	
	tagctgtacc ctcca	15
<210>	10434	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10434	
	aggcatcgca acacc	15
<210>	10435	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10435	
	acacctggtt gccac	15
<210>	10436	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10436	
	taggcatcgc aacac	15
<210>	10437	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	

<400>	10437		
	catcgcaaca cctgg		15
<210>	10438		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10438		
	gcatcgcaac acctg		15
<210>	10439		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10439		
	cacctgggtg ccacg		15
<210>	10440		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10440		
	gttgccacgc ttgac		15
<210>	10441		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10441		
	aacacctggt tgcca		15
<210>	10442		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10442		
	atcgcaacac ctggt		15
<210>	10443		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		

<220>		
<223>	Primer	
<400>	10443	
	ggcatcgcaa cacct	15
<210>	10444	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10444	
	tggttgccac gcttg	15
<210>	10445	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10445	
	cgcaacacct gggtg	15
<210>	10446	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10446	
	ggttgccacg cttga	15
<210>	10447	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10447	
	ttggagggta cagct	15
<210>	10448	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10448	
	tcgcaacacc tgggtt	15
<210>	10449	
<211>	15	

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10449	
	gccacgcttg acttg	15
<210>	10450	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10450	
	tgttggaggg tacag	15
<210>	10451	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10451	
	gttaggcatc gcaac	15
<210>	10452	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10452	
	ccacgcttga cttgc	15
<210>	10453	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10453	
	ctctcatggt ggagg	15
<210>	10454	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10454	
	gtccatcctt acacc	15



SEQLIST-20480.TXT

<210>	10455	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10455	
	gttggagggt acagc	15
<210>	10456	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10456	
	ttgccacgct tgact	15
<210>	10457	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10457	
	cctggttgcc acgct	15
<210>	10458	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10458	
	cacgcttgac ttgct	15
<210>	10459	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10459	
	ctcatgttgg agggt	15
<210>	10460	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	

<400>	10460	
tggagggtac agcta		15
<210>	10461	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10461	
tgccacgctt gactt		15
<210>	10462	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10462	
ccagcaccaa agtga		15
<210>	10463	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10463	
ctggttgcca cgctt		15
<210>	10464	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10464	
catgttgag ggtac		15
<210>	10465	
<211>	24	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10465	
tgtcaatact taaatacact tact		24
<210>	10466	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    10466
gtcaatactt aaatacactt acttt                25

<210>    10467
<211>    25
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10467
tgtcaatact taaatacact tactt                25

<210>    10468
<211>    26
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10468
tgtcaatact taaatacact tacttt                26

<210>    10469
<211>    24
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10469
gtcaatactt aaatacactt actt                 24

<210>    10470
<211>    26
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10470
caatacttaa atacacttac tttagc                26

<210>    10471
<211>    25
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10471
aatacttaaa tacacttact ttagc                25

<210>    10472

```

```

<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10472
tcaataactta aatacactta cttt                24

<210> 10473
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10473
atacttaaata acacttactt tagc                24

<210> 10474
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10474
acacttactt tagctgtacc c                    21

<210> 10475
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10475
ctcaactgtg tcaataactta aat                23

<210> 10476
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10476
cacttacttt agctgtaccc                    20

<210> 10477
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10477

```

atactcaact gtgtcaatac tt	SEQLIST-20480.TXT	22
<210> 10478		
<211> 21		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10478		
cacttacttt agctgtaccc t		21
<210> 10479		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10479		
acacttactt tagctgtacc ct		22
<210> 10480		
<211> 21		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10480		
acttacttta gctgtaccct c		21
<210> 10481		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10481		
acttacttta gctgtaccct		20
<210> 10482		
<211> 24		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10482		
caactgtgtc aatacttaaa taca		24
<210> 10483		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		

```

<223>    Primer
<400>    10483
cacttacttt agctgtaccc tc                22
<210>    10484
<211>    25
<212>    DNA
<213>    Artificial Sequence
<220>
<223>    Primer
<400>    10484
tcaactgtgt caatacttaa ataca            25
<210>    10485
<211>    23
<212>    DNA
<213>    Artificial Sequence
<220>
<223>    Primer
<400>    10485
tttattatct cgacaaagtc atc            23
<210>    10486
<211>    22
<212>    DNA
<213>    Artificial Sequence
<220>
<223>    Primer
<400>    10486
ttattatctc gacaaagtca tc                22
<210>    10487
<211>    21
<212>    DNA
<213>    Artificial Sequence
<220>
<223>    Primer
<400>    10487
tcgacaaagt catcaagtaa a                21
<210>    10488
<211>    22
<212>    DNA
<213>    Artificial Sequence
<220>
<223>    Primer
<400>    10488
tatctcgaca aagtcatcaa gt                22
<210>    10489
<211>    24
<212>    DNA

```

```

<213> Artificial Sequence
<220>
<223> Primer
<400> 10489
tttattatct cgacaaagtc atca 24
<210> 10490
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10490
ctcgacaaag tcatcaagta aa 22
<210> 10491
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10491
atctcgacaa agtcatcaag t 21
<210> 10492
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10492
ctcgacaaag tcatcaagta 20
<210> 10493
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10493
ttattatctc gacaaagtca tca 23
<210> 10494
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10494
attatctcga caaagtcac aag 23

```

<210>	10495	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10495	
tcttgtgact ttattatctc g		21
<210>	10496	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10496	
ttatctcgac aaagtcacag ag		22
<210>	10497	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10497	
tattatctcg acaagtcacac ca		22
<210>	10498	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10498	
tatctcgacac aagtcacacac g		21
<210>	10499	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10499	
attatctcgacacacacacac a		21
<210>	10500	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	



SEQLIST-20480.TXT

<400>	10500						
tctcgacaaa	g	t	c	a	t	c	a
							20
<210>	10501						
<211>	20						
<212>	DNA						
<213>	Artificial Sequence						
<220>							
<223>	Primer						
<400>	10501						
tcgacaaagt	c	a	t	c	a	a	g
							20
<210>	10502						
<211>	21						
<212>	DNA						
<213>	Artificial Sequence						
<220>							
<223>	Primer						
<400>	10502						
tattatctcg	a	c	a	a	a	g	t
	c						21
<210>	10503						
<211>	20						
<212>	DNA						
<213>	Artificial Sequence						
<220>							
<223>	Primer						
<400>	10503						
atctcgacaa	a	g	t	c	a	t	c
	a	a	g				20
<210>	10504						
<211>	20						
<212>	DNA						
<213>	Artificial Sequence						
<220>							
<223>	Primer						
<400>	10504						
cgacaaagtc	a	t	c	a	a	g	t
	a	a	a				20
<210>	10505						
<211>	1006						
<212>	DNA						
<213>	SARS coronavirus						
<400>	10505						
taggttttta	c	t	a	c	c	c	a
aaaagccaac	c	a	a	c	c	t	c
caacctcgat	c	t	c	t	t	g	t
tctgttctct	t	c	t	g	t	t	c
aaacgaacaa	a	t	t	a	a	a	t
ctgataatgg	a	c	c	c	c	a	a
aaccaacgta	g	t	g	c	c	c	c
gtgcccccg	c	a	t	t	a	a	c
cattacattt	g	g	t	g	a	c	c
cagattcaac	t	g	a	c	a	a	t
cagaatggag	g	a	c	t	g	c	a
gactgcaatg	g	g	g	c	a	a	g
gggcaaggcc	a	a	a	c	a	g	c
cgacccaag	g	t	t	a	c	c	a
taatatggcg	t	c	t	t	g	g	t
tcttggttca	c	a	g	c	a	t	g
cagctctcac	t	c	a	g	c	a	t
aaggaggaac	t	t	a	g	a	t	t
tcgaggccag	g	g	c	g	t	t	c
ggcgttccaa	t	c	a	a	c	a	a
gatgaccaa	a	t	t	g	c	t	a
ccgaagagct	a	c	c	c	a	c	a
acccgacgag	g	a	c	t	a	a	a
ttcgtgggtg	t	g	a	c	g	g	c
atgaaagagc	t	c	a	g	c	c	c
atggtacttc	t	a	t	t	a	c	c
tattacctag	a	a	a	g	g	c	a
agaagggcatc	g	t	a	t	g	g	g
gtatgggttg	a	g	a	a	g	c	t
caactggccc	a	g	c	c	t	t	a
acacccaaag	a	c	c	c	c	a	a
accacattgg	c	a	c	c	c	a	a
ccttaataaca	a	t	a	a	a	a	a
caactgaggg	a	g	c	c	t	t	a
acacccaaag	a	c	c	c	c	a	a
accacattgg	c	a	c	c	c	a	a
ccttaataaca	a	t	a	a	a	a	a
atgctgcccac	c	g	t	g	c	t	a
cttcctcaag	a	a	c	a	a	c	a
gaacaaaggc	t	t	c	t	a	c	g
ttctacgcag							60
							120
							180
							240
							300
							360
							420
							480
							540
							600

SEQLIST-20480.TXT

agggaagcag	aggcggcagt	caagcctctt	ctcgtctctc	atcacgtagt	cgcggttaatt	660
caagaaattc	aactcctggc	agcagtaggg	gaaattctcc	tgctcgaatg	gctagcggag	720
gtggtgaaac	tgccctcgcg	ctattgctgc	tagacagatt	gaaccagctt	gagagcaaag	780
tttctggtaa	aggccaacaa	caacaaggcc	aaactgtcac	taagaaatct	gctgctgagg	840
catctaaaaa	gcctcgccaa	aaacgtactg	ccacaaaaca	gtacaacgtc	actcaagcat	900
ttgggagacg	tggtccagaa	caaaccacaag	gaaatttcgg	ggaccaagac	ctaatacagac	960
aaggaactga	ttacaaacat	tgggccgcaa	attgcacaat	ttgcct		1006

<210> 10506  
 <211> 23  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10506  
 Val Phe Thr Tyr Pro Gly Lys Ala Asn Gln Pro Arg Ser Leu Val Asp  
 1 5 10 15

Leu Phe Ser Lys Arg Thr Asn  
 20

<210> 10507  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10507  
 Trp Thr Pro Ile Lys Pro Thr  
 1 5

<210> 10508  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10508  
 Cys Pro Pro His Tyr Ile Trp Trp Thr His Arg Phe Asn  
 1 5 10

<210> 10509  
 <211> 74  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10509  
 Pro Glu Trp Arg Thr Ala Met Gly Gln Gly Gln Asn Ser Ala Asp Pro  
 1 5 10 15

Lys Val Tyr Pro Ile Ile Leu Arg Leu Gly Ser Gln Leu Ser Leu Ser  
 20 25 30

Met Ala Arg Arg Asn Leu Asp Ser Leu Glu Ala Arg Ala Phe Gln Ser

35 40 45  
 Thr Pro Ile Val Val Gln Met Thr Lys Leu Ala Thr Thr Glu Glu Leu  
 50 55 60

Pro Asp Glu Phe Val Val Val Thr Ala Lys  
 65 70

<210> 10510  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10510  
 Lys Ser Ser Ala Pro Asp Gly Thr Ser Ile Thr  
 1 5 10

<210> 10511  
 <211> 25  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10511  
 Glu Leu Ala Gln Lys Leu His Phe Pro Thr Ala Leu Thr Lys Lys Ala  
 1 5 10 15

Ser Tyr Gly Leu Gln Leu Arg Glu Pro  
 20 25

<210> 10512  
 <211> 84  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10512  
 Ile His Pro Lys Thr Thr Leu Ala Pro Ala Ile Leu Ile Thr Met Leu  
 1 5 10 15

Pro Pro Cys Tyr Asn Phe Leu Lys Glu Gln His Cys Gln Lys Ala Ser  
 20 25 30

Thr Gln Arg Glu Ala Glu Ala Ala Val Lys Pro Leu Leu Ala Pro His  
 35 40 45

His Val Val Ala Val Ile Gln Glu Ile Gln Leu Leu Ala Ala Val Gly  
 50 55 60

Glu Ile Leu Leu Leu Glu Trp Leu Ala Glu Val Val Lys Leu Pro Ser  
 65 70 75 80

Arg Tyr Cys Cys

<210> 10513

SEQLIST-20480.TXT

<211> 63  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10513  
Thr Ser Leu Arg Ala Lys Phe Leu Val Lys Ala Asn Asn Asn Lys Ala  
1 5 10 15  
Lys Leu Ser Leu Arg Asn Leu Leu Leu Arg His Leu Lys Ser Leu Ala  
20 25 30  
Lys Asn Val Leu Pro Gln Asn Ser Thr Thr Ser Leu Lys His Leu Gly  
35 40 45  
Asp Val Val Gln Asn Lys Pro Lys Glu Ile Ser Gly Thr Lys Thr  
50 55 60

<210> 10514  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10514  
Ser Asp Lys Glu Leu Ile Thr Asn Ile Gly Pro Gln Ile Ala Gln Phe  
1 5 10 15  
Ala

<210> 10515  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10515  
Arg Phe Leu Pro Thr Gln Glu Lys Pro Thr Asn Leu Asp Leu Leu  
1 5 10 15

<210> 10516  
<211> 57  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10516  
Ile Cys Ser Leu Asn Glu Gln Ile Lys Met Ser Asp Asn Gly Pro Gln  
1 5 10 15  
Ser Asn Gln Arg Ser Ala Pro Arg Ile Thr Phe Gly Gly Pro Thr Asp  
20 25 30  
Ser Thr Asp Asn Asn Gln Asn Gly Gly Leu Gln Trp Gly Lys Ala Lys

35 40 45

Thr Ala Pro Thr Pro Arg Phe Thr Gln  
50 55

<210> 10517  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10517  
Tyr Cys Val Leu Val His Ser Ser His Ser Ala Trp Gln Gly Gly Thr  
1 5 10 15

<210> 10518  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10518  
Ile Pro Ser Arg Pro Gly Arg Ser Asn Gln His Gln  
1 5 10

<210> 10519  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10519  
Pro Asn Trp Leu Leu Pro Lys Ser Tyr Pro Thr Ser Ser Trp Trp  
1 5 10 15

<210> 10520  
<211> 27  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10520  
Arg Gln Asn Glu Arg Ala Gln Pro Gln Met Val Leu Leu Leu Pro Arg  
1 5 10 15

Asn Trp Pro Arg Ser Phe Thr Ser Leu Arg Arg  
20 25

<210> 10521  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10521

Gln Arg Arg His Arg Met Gly Cys Asn  
1 5

<210> 10522

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10522

Gly Ser Leu Glu Tyr Thr Gln Arg Pro His Trp His Pro Gln Ser  
1 5 10 15

<210> 10523

<211> 36

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10523

Gln Cys Cys His Arg Ala Thr Thr Ser Ser Arg Asn Asn Ile Ala Lys  
1 5 10 15

Arg Leu Leu Arg Arg Gly Lys Gln Arg Arg Gln Ser Ser Leu Phe Ser  
20 25 30

Leu Leu Ile Thr  
35

<210> 10524

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10524

Phe Lys Lys Phe Asn Ser Trp Gln Gln  
1 5

<210> 10525

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10525

Gly Lys Phe Ser Cys Ser Asn Gly  
1 5

<210> 10526

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10526

Asn Cys Pro Arg Ala Ile Ala Ala Arg Gln Ile Glu Pro Ala  
1 5 10

<210> 10527

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10527

Glu Gln Ser Phe Trp  
1 5

<210> 10528

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10528

Arg Pro Thr Thr Thr Arg Pro Asn Cys His  
1 5 10

<210> 10529

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10529

Glu Ile Cys Cys  
1

<210> 10530

<211> 40

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10530

Lys Ala Ser Pro Lys Thr Tyr Cys His Lys Thr Val Gln Arg His Ser  
1 5 10 15

Ser Ile Trp Glu Thr Trp Ser Arg Thr Asn Pro Arg Lys Phe Arg Gly  
20 25 30

Pro Arg Pro Asn Gln Thr Arg Asn  
35 40

SEQLIST-20480.TXT

<210> 10531  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10531  
 Leu Gln Thr Leu Gly Arg Lys Leu His Asn Leu Pro  
 1 5 10

<210> 10532  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10532  
 Gly Phe Tyr Leu Pro Arg Lys Ser Gln Pro Thr Ser Ile Ser Cys Arg  
 1 5 10 15

Ser Val Leu

<210> 10533  
 <211> 314  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> SARS coronavirus

<400> 10533  
 Thr Asn Lys Leu Lys Cys Leu Ile Met Asp Pro Asn Gln Thr Asn Val  
 1 5 10 15

Val Pro Pro Ala Leu His Leu Val Asp Pro Gln Ile Gln Leu Thr Ile  
 20 25 30

Thr Arg Met Glu Asp Cys Asn Gly Ala Arg Pro Lys Gln Arg Arg Pro  
 35 40 45

Gln Gly Leu Pro Asn Asn Ile Ala Ser Trp Phe Thr Ala Leu Thr Gln  
 50 55 60

His Gly Lys Glu Glu Leu Arg Phe Pro Arg Gly Gln Gly Val Pro Ile  
 65 70 75 80

Asn Thr Asn Ser Gly Pro Asp Asp Gln Ile Gly Tyr Tyr Arg Arg Ala  
 85 90 95

Thr Arg Arg Val Arg Gly Gly Asp Gly Lys Met Lys Glu Leu Ser Pro  
 100 105 110

Arg Trp Tyr Phe Tyr Tyr Leu Gly Thr Gly Pro Glu Ala Ser Leu Pro  
 115 120 125

Tyr Gly Ala Asn Lys Glu Gly Ile Val Trp Val Ala Thr Glu Gly Ala  
 130 135 140



SEQLIST-20480.TXT

Leu Asn Thr Pro Lys Asp His Ile Gly Thr Arg Asn Pro Asn Asn Asn  
 145 150 155 160  
 Ala Ala Thr Val Leu Gln Leu Pro Gln Gly Thr Thr Leu Pro Lys Gly  
 165 170 175  
 Phe Tyr Ala Glu Gly Ser Arg Gly Gly Ser Gln Ala Ser Ser Arg Ser  
 180 185 190  
 Ser Ser Arg Ser Arg Gly Asn Ser Arg Asn Ser Thr Pro Gly Ser Ser  
 195 200 205  
 Arg Gly Asn Ser Pro Ala Arg Met Ala Ser Gly Gly Gly Glu Thr Ala  
 210 215 220  
 Leu Ala Leu Leu Leu Leu Asp Arg Leu Asn Gln Leu Glu Ser Lys Val  
 225 230 235 240  
 Ser Gly Lys Gly Gln Gln Gln Gln Gly Gln Thr Val Thr Lys Lys Ser  
 245 250 255  
 Ala Ala Glu Ala Ser Lys Lys Pro Arg Gln Lys Arg Thr Ala Thr Lys  
 260 265 270  
 Gln Tyr Asn Val Thr Gln Ala Phe Gly Arg Arg Gly Pro Glu Gln Thr  
 275 280 285  
 Gln Gly Asn Phe Gly Asp Gln Asp Leu Ile Arg Gln Gly Thr Asp Tyr  
 290 295 300  
 Lys His Trp Ala Ala Asn Cys Thr Ile Cys  
 305 310

<210> 10534  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10534  
 Arg Gln Ile Val Gln Phe Ala Ala Gln Cys Leu  
 1 5 10

<210> 10535  
 <211> 25  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10535  
 Ser Val Pro Cys Leu Ile Arg Ser Trp Ser Pro Lys Phe Pro Trp Val  
 1 5 10 15

Cys Ser Gly Pro Arg Leu Pro Asn Ala  
 20 25

<210> 10536  
 <211> 90  
 <212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10536

Val Thr Leu Tyr Cys Phe Val Ala Val Arg Phe Trp Arg Gly Phe Leu  
1 5 10 15  
Asp Ala Ser Ala Ala Asp Phe Leu Val Thr Val Trp Pro Cys Cys Cys  
20 25 30  
Trp Pro Leu Pro Glu Thr Leu Leu Ser Ser Trp Phe Asn Leu Ser Ser  
35 40 45  
Ser Asn Ser Ala Arg Ala Val Ser Pro Pro Pro Leu Ala Ile Arg Ala  
50 55 60  
Gly Glu Phe Pro Leu Leu Leu Pro Gly Val Glu Phe Leu Glu Leu Pro  
65 70 75 80  
Arg Leu Arg Asp Glu Glu Arg Glu Glu Ala  
85 90

<210> 10537

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10537

Leu Pro Pro Leu Leu Pro Ser Ala  
1 5

<210> 10538

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10538

Lys Pro Phe Gly Asn Val Val Pro  
1 5

<210> 10539

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10539

Gly Ser Cys Ser Thr Val Ala Ala Leu Leu Leu Gly Leu Arg Val Pro  
1 5 10 15  
Met Trp Ser Leu Gly Val Phe Lys Ala Pro Ser Val Ala Thr His Thr  
20 25 30

SEQLIST-20480.TXT

Met Pro Ser Leu Leu Ala Pro  
35

<210> 10540  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10540  
Gly Ser Glu Ala Ser Gly Pro Val Pro Arg  
1 5 10

<210> 10541  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10541  
Lys Tyr His Leu Gly Leu Ser Ser Phe Ile Leu Pro Ser Pro Pro Arg  
1 5 10 15

Thr Arg Arg Val Ala Leu Arg  
20

<210> 10542  
<211> 27  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10542  
Pro Ile Trp Ser Ser Gly Pro Leu Leu Val Leu Ile Gly Thr Pro Trp  
1 5 10 15

Pro Arg Gly Asn Leu Ser Ser Ser Leu Pro Cys  
20 25

<210> 10543  
<211> 34  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10543  
Val Arg Ala Val Asn Gln Asp Ala Ile Leu Leu Gly Lys Pro Trp Gly  
1 5 10 15

Arg Arg Cys Phe Gly Leu Ala Pro Leu Gln Ser Ser Ile Leu Val Ile  
20 25 30

Val Ser

SEQLIST-20480.TXT

<210> 10544  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10544  
 Ile Cys Gly Ser Thr Lys Cys Asn Ala Gly Gly Thr Thr Leu Val  
 1 5 10 15

<210> 10545  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10545  
 Leu Gly Ser Ile Ile Arg His Phe Asn Leu Phe Val  
 1 5 10

<210> 10546  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10546  
 Arg Thr Asp Leu Gln Glu Ile Glu Val Gly Trp Leu Phe Leu Gly Arg  
 1 5 10 15

<210> 10547  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10547  
 Gly Lys Leu Cys Asn Leu Arg Pro Asn Val Cys Asn Gln Phe Leu Val  
 1 5 10 15

<210> 10548  
 <211> 21  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 10548  
 Leu Gly Leu Gly Pro Arg Asn Phe Leu Gly Phe Val Leu Asp His Val  
 1 5 10 15

Ser Gln Met Leu Glu

20

<210> 10549  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10549  
Arg Cys Thr Val Leu Trp Gln Tyr Val Phe Gly Glu Ala Phe  
1 5 10

<210> 10550  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10550  
Met Pro Gln Gln Gln Ile Ser  
1 5

<210> 10551  
<211> 34  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10551  
Gln Phe Gly Leu Val Val Val Gly Leu Tyr Gln Lys Leu Cys Ser Gln  
1 5 10 15  
Ala Gly Ser Ile Cys Leu Ala Ala Ile Ala Arg Gly Gln Phe His His  
20 25 30

Leu Arg

<210> 10552  
<211> 59  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10552  
Pro Phe Glu Gln Glu Asn Phe Pro Tyr Cys Cys Gln Glu Leu Asn Phe  
1 5 10 15

Leu Asn Tyr Arg Asp Tyr Val Met Arg Ser Glu Lys Arg Leu Asp Cys  
20 25 30

Arg Leu Cys Phe Pro Leu Arg Arg Ser Leu Leu Ala Met Leu Phe Leu  
35 40 45

Glu Glu Val Val Ala Arg Trp Gln His Cys Tyr

50

55

<210> 10553  
<211> 25  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10553  
Asp Cys Gly Cys Gln Cys Gly Leu Trp Val Tyr Ser Arg Leu Pro Gln  
1 5 10 15  
Leu Gln Pro Ile Arg Cys Leu Leu Cys  
20 25

<210> 10554  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10554  
Arg Arg Arg Glu Val Lys Leu Leu Gly Gln Phe Leu Gly Asn Arg Ser  
1 5 10 15  
Thr Ile Trp Gly  
20

<210> 10555  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10555  
Ala Leu Ser Phe Cys Arg His His His Glu Leu Val Gly  
1 5 10

<210> 10556  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10556  
Leu Phe Gly Ser Ser Gln Phe Gly His Leu Asp His Tyr Trp Cys  
1 5 10 15

<210> 10557  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

SEQLIST-20480.TXT

<400> 10557  
Leu Glu Arg Pro Gly Leu Glu Gly Ile  
1 5

<210> 10558  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10558  
Val Pro Pro Cys His Ala Glu  
1 5

<210> 10559  
<211> 79  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10559  
Thr Lys Thr Gln Tyr Tyr Trp Val Asn Leu Gly Val Gly Ala Val Leu  
1 5 10 15  
Ala Leu Pro His Cys Ser Pro Pro Phe Trp Leu Leu Ser Val Glu Ser  
20 25 30  
Val Gly Pro Pro Asn Val Met Arg Gly Ala Leu Arg Trp Phe Asp Trp  
35 40 45  
Gly Pro Leu Ser Asp Ile Leu Ile Cys Ser Phe Arg Glu Gln Ile Tyr  
50 55 60  
Lys Arg Ser Arg Leu Val Gly Phe Ser Trp Val Gly Lys Asn Leu  
65 70 75

<210> 10560  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10560  
Ala Asn Cys Ala Ile Cys Gly Pro Met Phe Val Ile Ser Ser Leu Ser  
1 5 10 15

Asp

<210> 10561  
<211> 66  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

SEQLIST-20480.TXT

<400> 10561  
Val Leu Val Pro Glu Ile Ser Leu Gly Leu Phe Trp Thr Thr Ser Pro  
1 5 10 15  
Lys Cys Leu Ser Asp Val Val Leu Phe Cys Gly Ser Thr Phe Leu Ala  
20 25 30  
Arg Leu Phe Arg Cys Leu Ser Ser Arg Phe Leu Ser Asp Ser Leu Ala  
35 40 45  
Leu Leu Leu Leu Ala Phe Thr Arg Asn Phe Ala Leu Lys Leu Val Gln  
50 55 60  
Ser Val  
65

<210> 10562  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10562  
Arg Glu Gly Ser Phe Thr Thr Ser Ala Ser His Ser Ser Arg Arg Ile  
1 5 10 15  
Ser Pro Thr Ala Ala Arg Ser  
20

<210> 10563  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10563  
Ile Thr Ala Thr Thr  
1 5

<210> 10564  
<211> 27  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10564  
Gly Ala Arg Arg Gly Leu Thr Ala Ala Ser Ala Ser Leu Cys Val Glu  
1 5 10 15  
Ala Phe Trp Gln Cys Cys Ser Leu Arg Lys Leu  
20 25

<210> 10565  
<211> 38  
<212> PRT  
<213> Artificial Sequence



SEQLIST-20480.TXT

<220>

<223> Inferred translation product

<400> 10565

His Gly Gly Ser Ile Val Ile Arg Ile Ala Gly Ala Asn Val Val Phe  
1 5 10 15

Gly Cys Ile Gln Gly Ser Leu Ser Cys Asn Pro Tyr Asp Ala Phe Phe  
20 25 30

Val Ser Ala Val Gly Lys  
35

<210> 10566

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10566

Ser Phe Trp Ala Ser Ser  
1 5

<210> 10567

<211> 67

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10567

Val Ile Glu Val Pro Ser Gly Ala Glu Leu Phe His Phe Ala Val Thr  
1 5 10 15

Thr Thr Asn Ser Ser Gly Ser Ser Ser Val Val Ala Asn Leu Val Ile  
20 25 30

Trp Thr Thr Ile Gly Val Asp Trp Asn Ala Leu Ala Ser Arg Glu Ser  
35 40 45

Lys Phe Leu Leu Ala Met Leu Ser Glu Ser Cys Glu Pro Arg Arg Asn  
50 55 60

Ile Ile Gly  
65

<210> 10568

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 10568

Thr Leu Gly Ser Ala Leu Phe Trp Pro Cys Pro Ile Ala Val Leu His  
1 5 10 15

Ser Gly Tyr Cys Gln Leu Asn Leu Trp Val His Gln Met

20

25

<210> 10569  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10569  
Cys Gly Gly His Tyr Val Gly Leu Ile Gly Val His Tyr Gln Thr Phe  
1 5 10 15

<210> 10570  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 10570  
Phe Val Arg Leu Glu Asn Arg Ser Thr Arg Asp Arg Gly Trp Leu Ala  
1 5 10 15

Phe Pro Gly

<210> 10571  
<211> 307  
<212> PRT  
<213> SARS coronavirus

<400> 10571  
Met Asp Pro Asn Gln Thr Asn Val Val Pro Pro Ala Leu His Leu Val  
1 5 10 15

Asp Pro Gln Ile Gln Leu Thr Ile Thr Arg Met Glu Asp Cys Asn Gly  
20 25 30

Ala Arg Pro Lys Gln Arg Arg Pro Gln Gly Leu Pro Asn Asn Ile Ala  
35 40 45

Ser Trp Phe Thr Ala Leu Thr Gln His Gly Lys Glu Glu Leu Arg Phe  
50 55 60

Pro Arg Gly Gln Gly Val Pro Ile Asn Thr Asn Ser Gly Pro Asp Asp  
65 70 75 80

Gln Ile Gly Tyr Tyr Arg Arg Ala Thr Arg Arg Val Arg Gly Gly Asp  
85 90 95

Gly Lys Met Lys Glu Leu Ser Pro Arg Trp Tyr Phe Tyr Tyr Leu Gly  
100 105 110

Thr Gly Pro Glu Ala Ser Leu Pro Tyr Gly Ala Asn Lys Glu Gly Ile  
115 120 125

Val Trp Val Ala Thr Glu Gly Ala Leu Asn Thr Pro Lys Asp His Ile  
130 135 140

SEQLIST-20480.TXT

Gly Thr Arg Asn Pro Asn Asn Asn Ala Ala Thr Val Leu Gln Leu Pro  
145 150 155 160  
Gln Gly Thr Thr Leu Pro Lys Gly Phe Tyr Ala Glu Gly Ser Arg Gly  
165 170 175  
Gly Ser Gln Ala Ser Ser Arg Ser Ser Arg Ser Arg Gly Asn Ser  
180 185 190  
Arg Asn Ser Thr Pro Gly Ser Ser Arg Gly Asn Ser Pro Ala Arg Met  
195 200 205  
Ala Ser Gly Gly Gly Glu Thr Ala Leu Ala Leu Leu Leu Leu Asp Arg  
210 215 220  
Leu Asn Gln Leu Glu Ser Lys Val Ser Gly Lys Gly Gln Gln Gln Gln  
225 230 235 240  
Gly Gln Thr Val Thr Lys Lys Ser Ala Ala Glu Ala Ser Lys Lys Pro  
245 250 255  
Arg Gln Lys Arg Thr Ala Thr Lys Gln Tyr Asn Val Thr Gln Ala Phe  
260 265 270  
Gly Arg Arg Gly Pro Glu Gln Thr Gln Gly Asn Phe Gly Asp Gln Asp  
275 280 285  
Leu Ile Arg Gln Gly Thr Asp Tyr Lys His Trp Ala Ala Asn Cys Thr  
290 295 300  
Ile Cys Leu  
305

<210> 10572  
<211> 281  
<212> PRT  
<213> SARS coronavirus

<400> 10572

Met Glu Asp Cys Asn Gly Ala Arg Pro Lys Gln Arg Arg Pro Gln Gly  
1 5 10 15  
Leu Pro Asn Asn Ile Ala Ser Trp Phe Thr Ala Leu Thr Gln His Gly  
20 25 30  
Lys Glu Glu Leu Arg Phe Pro Arg Gly Gln Gly Val Pro Ile Asn Thr  
35 40 45  
Asn Ser Gly Pro Asp Asp Gln Ile Gly Tyr Tyr Arg Arg Ala Thr Arg  
50 55 60  
Arg Val Arg Gly Gly Asp Gly Lys Met Lys Glu Leu Ser Pro Arg Trp  
65 70 75 80  
Tyr Phe Tyr Tyr Leu Gly Thr Gly Pro Glu Ala Ser Leu Pro Tyr Gly  
85 90 95  
Ala Asn Lys Glu Gly Ile Val Trp Val Ala Thr Glu Gly Ala Leu Asn  
100 105 110  
Thr Pro Lys Asp His Ile Gly Thr Arg Asn Pro Asn Asn Asn Ala Ala  
115 120 125

SEQLIST-20480.TXT

Thr Val Leu Gln Leu Pro Gln Gly Thr Thr Leu Pro Lys Gly Phe Tyr  
130 135 140

Ala Glu Gly Ser Arg Gly Gly Ser Gln Ala Ser Ser Arg Ser Ser Ser  
145 150 155 160

Arg Ser Arg Gly Asn Ser Arg Asn Ser Thr Pro Gly Ser Ser Arg Gly  
165 170 175

Asn Ser Pro Ala Arg Met Ala Ser Gly Gly Gly Glu Thr Ala Leu Ala  
180 185 190

Leu Leu Leu Leu Asp Arg Leu Asn Gln Leu Glu Ser Lys Val Ser Gly  
195 200 205

Lys Gly Gln Gln Gln Gln Gly Gln Thr Val Thr Lys Lys Ser Ala Ala  
210 215 220

Glu Ala Ser Lys Lys Pro Arg Gln Lys Arg Thr Ala Thr Lys Gln Tyr  
225 230 235 240

Asn Val Thr Gln Ala Phe Gly Arg Arg Gly Pro Glu Gln Thr Gln Gly  
245 250 255

Asn Phe Gly Asp Gln Asp Leu Ile Arg Gln Gly Thr Asp Tyr Lys His  
260 265 270

Trp Ala Ala Asn Cys Thr Ile Cys Leu  
275 280

<210> 10573  
<211> 209  
<212> PRT  
<213> SARS coronavirus

<400> 10573  
Met Lys Glu Leu Ser Pro Arg Trp Tyr Phe Tyr Tyr Leu Gly Thr Gly  
1 5 10 15

Pro Glu Ala Ser Leu Pro Tyr Gly Ala Asn Lys Glu Gly Ile Val Trp  
20 25 30

Val Ala Thr Glu Gly Ala Leu Asn Thr Pro Lys Asp His Ile Gly Thr  
35 40 45

Arg Asn Pro Asn Asn Asn Ala Ala Thr Val Leu Gln Leu Pro Gln Gly  
50 55 60

Thr Thr Leu Pro Lys Gly Phe Tyr Ala Glu Gly Ser Arg Gly Gly Ser  
65 70 75 80

Gln Ala Ser Ser Arg Ser Ser Ser Arg Ser Arg Gly Asn Ser Arg Asn  
85 90 95

Ser Thr Pro Gly Ser Ser Arg Gly Asn Ser Pro Ala Arg Met Ala Ser  
100 105 110

Gly Gly Gly Glu Thr Ala Leu Ala Leu Leu Leu Leu Asp Arg Leu Asn  
115 120 125

Gln Leu Glu Ser Lys Val Ser Gly Lys Gly Gln Gln Gln Gln Gly Gln  
130 135 140

SEQLIST-20480.TXT

Thr Val Thr Lys Lys Ser Ala Ala Glu Ala Ser Lys Lys Pro Arg Gln  
145 150 155 160  
Lys Arg Thr Ala Thr Lys Gln Tyr Asn Val Thr Gln Ala Phe Gly Arg  
165 170 175  
Arg Gly Pro Glu Gln Thr Gln Gly Asn Phe Gly Asp Gln Asp Leu Ile  
180 185 190  
Arg Gln Gly Thr Asp Tyr Lys His Trp Ala Ala Asn Cys Thr Ile Cys  
195 200 205

Leu

<210> 10574  
<211> 100  
<212> PRT  
<213> SARS coronavirus

<400> 10574  
Met Ala Ser Gly Gly Gly Glu Thr Ala Leu Ala Leu Leu Leu Leu Asp  
1 5 10 15  
Arg Leu Asn Gln Leu Glu Ser Lys Val Ser Gly Lys Gly Gln Gln Gln  
20 25 30  
Gln Gly Gln Thr Val Thr Lys Lys Ser Ala Ala Glu Ala Ser Lys Lys  
35 40 45  
Pro Arg Gln Lys Arg Thr Ala Thr Lys Gln Tyr Asn Val Thr Gln Ala  
50 55 60  
Phe Gly Arg Arg Gly Pro Glu Gln Thr Gln Gly Asn Phe Gly Asp Gln  
65 70 75 80  
Asp Leu Ile Arg Gln Gly Thr Asp Tyr Lys His Trp Ala Ala Asn Cys  
85 90 95  
Thr Ile Cys Leu  
100

<210> 10575  
<211> 74  
<212> PRT  
<213> SARS coronavirus

<400> 10575  
Pro Glu Trp Arg Thr Ala Met Gly Gln Gly Gln Asn Ser Ala Asp Pro  
1 5 10 15  
Lys Val Tyr Pro Ile Ile Leu Arg Leu Gly Ser Gln Leu Ser Leu Ser  
20 25 30  
Met Ala Arg Arg Asn Leu Asp Ser Leu Glu Ala Arg Ala Phe Gln Ser  
35 40 45  
Thr Pro Ile Val Val Gln Met Thr Lys Leu Ala Thr Thr Glu Glu Leu  
50 55 60  
Pro Asp Glu Phe Val Val Val Thr Ala Lys  
65 70

SEQLIST-20480.TXT

<210> 10576  
 <211> 68  
 <212> PRT  
 <213> SARS coronavirus

<400> 10576  
 Met Gly Gln Gly Gln Asn Ser Ala Asp Pro Lys Val Tyr Pro Ile Ile  
 1 5 10 15  
 Leu Arg Leu Gly Ser Gln Leu Ser Leu Ser Met Ala Arg Arg Asn Leu  
 20 25 30  
 Asp Ser Leu Glu Ala Arg Ala Phe Gln Ser Thr Pro Ile Val Val Gln  
 35 40 45  
 Met Thr Lys Leu Ala Thr Thr Glu Glu Leu Pro Asp Glu Phe Val Val  
 50 55 60  
 Val Thr Ala Lys  
 65

<210> 10577  
 <211> 84  
 <212> PRT  
 <213> SARS coronavirus

<400> 10577  
 Ile His Pro Lys Thr Thr Leu Ala Pro Ala Ile Leu Ile Thr Met Leu  
 1 5 10 15  
 Pro Pro Cys Tyr Asn Phe Leu Lys Glu Gln His Cys Gln Lys Ala Ser  
 20 25 30  
 Thr Gln Arg Glu Ala Glu Ala Ala Val Lys Pro Leu Leu Ala Pro His  
 35 40 45  
 His Val Val Ala Val Ile Gln Glu Ile Gln Leu Leu Ala Ala Val Gly  
 50 55 60  
 Glu Ile Leu Leu Leu Glu Trp Leu Ala Glu Val Val Lys Leu Pro Ser  
 65 70 75 80  
 Arg Tyr Cys Cys

<210> 10578  
 <211> 70  
 <212> PRT  
 <213> SARS coronavirus

<400> 10578  
 Met Leu Pro Pro Cys Tyr Asn Phe Leu Lys Glu Gln His Cys Gln Lys  
 1 5 10 15  
 Ala Ser Thr Gln Arg Glu Ala Glu Ala Ala Val Lys Pro Leu Leu Ala  
 20 25 30  
 Pro His His Val Val Ala Val Ile Gln Glu Ile Gln Leu Leu Ala Ala  
 35 40 45  
 Val Gly Glu Ile Leu Leu Leu Glu Trp Leu Ala Glu Val Val Lys Leu  
 50 55 60

SEQLIST-20480.TXT

Pro Ser Arg Tyr Cys Cys  
65 70

<210> 10579  
<211> 41  
<212> PRT  
<213> SARS coronavirus

<400> 10579  
Met Arg Gly Ala Leu Arg Trp Phe Asp Trp Gly Pro Leu Ser Asp Ile  
1 5 10 15

Leu Ile Cys Ser Phe Arg Glu Gln Ile Tyr Lys Arg Ser Arg Leu Val  
20 25 30

Gly Phe Ser Trp Val Gly Lys Asn Leu  
35 40

<210> 10580  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10580  
cctcatcacg tagtcgcg 18

<210> 10581  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10581  
cacttcctta cggcgc 16

<210> 10582  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10582  
acttcctac ggcgc 15

<210> 10583  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10583  
actgccctcg cgcta 15

<210> 10584

<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10584	
	tctcctgctc gaatggc	17
<210>	10585	
<211>	16	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10585	
	ctcctgctcg aatggc	16
<210>	10586	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10586	
	gtgcccccg catta	15
<210>	10587	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10587	
	actgccacaa aacagtacaa cg	22
<210>	10588	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10588	
	ctgccacaaa acagtacaac g	21
<210>	10589	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10589	



	SEQLIST-20480.TXT	
tgccacaaaa cagtacaacg		20
<210> 10590		
<211> 17		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10590		
catcacgtag tcgcggt		17
<210> 10591		
<211> 16		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10591		
tcacttcct acggcg		16
<210> 10592		
<211> 17		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10592		
ttcacttccc tacggcg		17
<210> 10593		
<211> 18		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10593		
cttcacttcc ctacggcg		18
<210> 10594		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10594		
gccctcgcgc tattg		15
<210> 10595		
<211> 19		
<212> DNA		
<213> Artificial Sequence		
<220>		

```

<223>    Primer
<400>    10595
ctcctcatca cgtagtcgc                                19

<210>    10596
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10596
acaaagaagg catcgtatgg                                20

<210>    10597
<211>    19
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10597
caaagaaggc atcgtatgg                                19

<210>    10598
<211>    18
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10598
tcctcatcac gtagtcgc                                18

<210>    10599
<211>    18
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10599
tcgccaaaaa cgtactgc                                18

<210>    10600
<211>    17
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10600
cgccaaaaac gtactgc                                17

<210>    10601
<211>    18
<212>    DNA

```

<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10601	
	gccaaaaggc ttctacgc	18
<210>	10602	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10602	
	ctcgccaaaa acgtactgc	19
<210>	10603	
<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10603	
	cgaagagcta cccgacg	17
<210>	10604	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10604	
	gaagagctac ccgacgag	18
<210>	10605	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10605	
	tgccccccgc attac	15
<210>	10606	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10606	
	ccaatcaaac caacgtagtg	20

<210>	10607	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10607	
	tcacgtagtc gcggtatt	19
<210>	10608	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10608	
	ctcatcacgt agtcgcgg	18
<210>	10609	
<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10609	
	tcatcacgta gtcgcgg	17
<210>	10610	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10610	
	ctgccctcgc gctat	15
<210>	10611	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10611	
	atcacgtagt cgcggtatt	19
<210>	10612	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	

<400>	10612	
	tgccctcgcg ctatt	15
<210>	10613	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10613	
	ccaaattggc tactaccga	19
<210>	10614	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10614	
	accaaattgg ctactaccga	20
<210>	10615	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10615	
	ttggcacccg caatc	15
<210>	10616	
<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10616	
	tgctcgaatg gctagcg	17
<210>	10617	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10617	
	aaggtttacc caataatatt gcg	23
<210>	10618	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	

```

<220>
<223>   Primer

<400>   10618
agggtttaccc aataatattg cg                22

<210>   10619
<211>   16
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10619
gctcgaatgg ctagcg                        16

<210>   10620
<211>   21
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10620
gggtttaccca ataatattgc g                21

<210>   10621
<211>   19
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10621
gctcctcatc acgtagtcg                    19

<210>   10622
<211>   18
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10622
attctcctgc tcgaatgg                      18

<210>   10623
<211>   19
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Primer

<400>   10623
aattctcctg ctcgaatgg                    19

<210>   10624
<211>   15

```

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10624	
	aactgccctc gcgct	15
<210>	10625	
<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10625	
	ttctcctgct cgaatgg	17
<210>	10626	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10626	
	caatcaaacc aacgtagtgc	20
<210>	10627	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10627	
	taacaaagaa ggcacgtat g	21
<210>	10628	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10628	
	aacaaagaag gcatcgtatg	20
<210>	10629	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10629	
	ctaacaaaga aggcacgta tg	22

SEQLIST-20480.TXT

<210> 10630  
 <211> 16  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10630  
 ccacgaactc gtcggg 16

<210> 10631  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10631  
 ttcttgaatt accgcgacta 20

<210> 10632  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10632  
 ttctttgtta gcgccgta 18

<210> 10633  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10633  
 aatttcttga attaccgcg 19

<210> 10634  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10634  
 gcagcaatag cgcca 15

<210> 10635  
 <211> 16  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer



<400>	10635	
ctccgctagc cattcg		16
<210>	10636	
<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10636	
cttctttggt agcgccg		17
<210>	10637	
<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10637	
ccaccacgaa ctcgtcg		17
<210>	10638	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10638	
atttcttgaa ttaccgcga		19
<210>	10639	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10639	
ccaccaaagt taatgcgg		18
<210>	10640	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10640	
aatgcttgag tgacgttgta c		21
<210>	10641	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    10641
tttcttgaat taccgcgac                                19

<210>    10642
<211>    17
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10642
tgcttccctc tgcgtag                                  17

<210>    10643
<211>    19
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10643
ttctttgtta gcgccgtag                                19

<210>    10644
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10644
tcttgaatta ccgcgactac                                20

<210>    10645
<211>    18
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10645
cagttgcaac ccatacga                                  18

<210>    10646
<211>    18
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10646
tcgggtagct cttcggtg                                  18

<210>    10647

```

```

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10647
tctgtctagc agcaatagcg 20

<210> 10648
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10648
cacgaactcg tcgggta 17

<210> 10649
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10649
accacgaact cgtcgg 16

<210> 10650
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10650
tccaccaaat gtaatgcg 18

<210> 10651
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10651
gagttgaatt tcttgaatta ccg 23

<210> 10652
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10652

```

SEQLIST-20480.TXT

cacgaactcg tcgggt

2 0 0

2 8

2 2

2 t c a S c

220

22

400 0

gcttccctct gcgtagaa

8

2 0 0 4

2 2

2 2

2 t c a S c

220

22

400 0 4

gtactgtttt gtggcagtag g

2

2 0 0

2

2 2

2 t c a S c

220

22

400 0

cggggggcac tacgt

2 0 0

2

2 2

2 t c a S c

220

22

400 0

cgggtagctc ttcggtagt

2 0 0

2 20

2 2

2 t c a S c

220

22

400 0

tgaatttctt gaattaccgc

20

2 0 0 8

2

2 2

2 t c a S c

220

<223>	Primer	
<400>	10658	
	tgtctagcag caatagcgc	19
<210>	10659	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10659	
	agcagcaata gcgcg	15
<210>	10660	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10660	
	ttcttgaatt accgcgact	19
<210>	10661	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10661	
	tgtgaaccaa gacgcaatat	20
<210>	10662	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10662	
	cattgttatt aggattgcgg	20
<210>	10663	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10663	
	ccacctccgc tagcc	15
<210>	10664	
<211>	17	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10664	
	tgcaacccat acgatgc	17
<210>	10665	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10665	
	gcggggggca ctacg	15
<210>	10666	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10666	
	tgaattaccg cgactacg	18
<210>	10667	
<211>	16	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10667	
	gcagcaatag cgcgag	16
<210>	10668	
<211>	16	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10668	
	tccgctagcc attcga	16
<210>	10669	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10669	
	tgtgaaccaa gacgcaata	19

SEQLIST-20480.TXT

<210> 10670  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10670  
 gttgcaaccc atacgatg 18

<210> 10671  
 <211> 17  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10671  
 cgtcaccacc acgaact 17

<210> 10672  
 <211> 17  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10672  
 ttcaccacct ccgctag 17

<210> 10673  
 <211> 17  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10673  
 tcaccaccac gaactcg 17

<210> 10674  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10674  
 tgtgcaattt gcggc 15

<210> 10675  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	10675	
	cagttgcaac ccatacgat	19
<210>	10676	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10676	
	ctgttttgtg gcagtacgtt	20
<210>	10677	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10677	
	actgttttgt ggcagtacgt	20
<210>	10678	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10678	
	gctgtgaacc aagacgca	18
<210>	10679	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10679	
	caaattgtgc aatttgcg	18
<210>	10680	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10680	
	agccaaccaa cctcg	15
<210>	10681	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	



SEQLIST-20480.TXT

<220>		
<223>	Primer	
<400>	10681	
	cggcagtcaa gcctc	15
<210>	10682	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10682	
	ggcttctacg cagag	15
<210>	10683	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10683	
	acacccaaag accac	15
<210>	10684	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10684	
	ccgacgagtt cgtgg	15
<210>	10685	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10685	
	gaccacattg gcacc	15
<210>	10686	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10686	
	agtgggccag atgac	15
<210>	10687	
<211>	15	

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10687	
	tcaactcctg gcagc	15
<210>	10688	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10688	
	tgggagacgt ggtcc	15
<210>	10689	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10689	
	tgggttgcaa ctgag	15
<210>	10690	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10690	
	gtggtccaga tgacc	15
<210>	10691	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10691	
	aactcctggc agcag	15
<210>	10692	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10692	
	caacgtcact caagc	15

SEQLIST-20480.TXT

<210> 10693  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10693  
 caaggccaaa ctgtc 15

<210> 10694  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10694  
 aatgctgccca ccgtg 15

<210> 10695  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10695  
 acgagttcgt ggtgg 15

<210> 10696  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10696  
 ttggtggacc cacag 15

<210> 10697  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10697  
 atttgggtgga cccac 15

<210> 10698  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

SEQLIST-20480.TXT

<400>	10698	
cccgacgagt	tcgtg	15
<210>	10699	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10699	
actggcccag	aagct	15
<210>	10700	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10700	
aatctgctgc	tgagg	15
<210>	10701	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10701	
tacccgacga	gttcg	15
<210>	10702	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10702	
aagccaacca	acctc	15
<210>	10703	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10703	
tcacgtagtc	gcggt	15
<210>	10704	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    10704
gttcgtggtg gtgac                                15

<210>    10705
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10705
ctcctgctcg aatgg                                15

<210>    10706
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10706
ttgggagacg tggtc                                15

<210>    10707
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10707
tggtgaaact gccct                                15

<210>    10708
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10708
aggccaaact gtcac                                15

<210>    10709
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10709
cgtcttggtt cacag                                15

<210>    10710

```

```

<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10710
ttccctcgag gccag 15

<210> 10711
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10711
aaccagcttg agagc 15

<210> 10712
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10712
tcactcagca tggca 15

<210> 10713
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10713
acccgacgag ttcgt 15

<210> 10714
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10714
ctcatcacgt agtcg 15

<210> 10715
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10715

```

tgctgctgag gcatc	15
<210> 10716	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10716	
aagagctacc cgacg	15
<210> 10717	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10717	
agaccacatt ggcac	15
<210> 10718	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10718	
aactggccca gaagc	15
<210> 10719	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10719	
accagcttga gagca	15
<210> 10720	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10720	
agggtggtgaa actgc	15
<210> 10721	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	

```

<223>    Primer
<400>    10721
caaaacagcg ccgac
15
<210>    10722
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10722
aggcatcgta tgggt
15
<210>    10723
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10723
tctgctgctg aggca
15
<210>    10724
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10724
gagctaccg acgag
15
<210>    10725
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10725
gacgagttcg tgggtg
15
<210>    10726
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10726
aaggcttcta cgcag
15
<210>    10727
<211>    15
<212>    DNA

```



<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10727	
	agagctcagc cccag	15
<210>	10728	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10728	
	caactcctgg cagca	15
<210>	10729	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10729	
	gcggcagtca agcct	15
<210>	10730	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10730	
	aggcttctac gcaga	15
<210>	10731	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10731	
	gagttcgtgg tggcg	15
<210>	10732	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10732	
	aggcggcagt caagc	15

<210>	10733	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10733	
	cgacgagttc gtggt	15
<210>	10734	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10734	
	taccgaagag ctacc	15
<210>	10735	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10735	
	gccaaccaac ctcga	15
<210>	10736	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10736	
	ggaggactgc aatgg	15
<210>	10737	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10737	
	ttgggccgca aattg	15
<210>	10738	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	

<400>	10738		
	catcgtatgg gttgc		15
<210>	10739		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10739		
	accccaaggt ttacc		15
<210>	10740		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10740		
	catttggtgg accca		15
<210>	10741		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10741		
	agctctcact cagca		15
<210>	10742		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10742		
	ctcagcccca gatgg		15
<210>	10743		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10743		
	tggcacccgc aatcc		15
<210>	10744		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		

```

<220>
<223>    Primer

<400>    10744
actcctggca gcagt                                15

<210>    10745
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10745
tcggggacca agacc                                15

<210>    10746
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10746
ggccgcaaatt tgcac                                15

<210>    10747
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10747
actgagggag ccttg                                15

<210>    10748
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10748
cctgctcgaa tggct                                15

<210>    10749
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10749
agagctaccc gacga                                15

<210>    10750
<211>    15

```

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10750	
	agctaccga cgagt	15
<210>	10751	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10751	
	cgagttcgtg gtggt	15
<210>	10752	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10752	
	ggtgaaactg ccctc	15
<210>	10753	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10753	
	cctcatcacg tagtc	15
<210>	10754	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10754	
	gtgaaactgc cctcg	15
<210>	10755	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10755	
	attccctcga ggcca	15

SEQLIST-20480.TXT

<210> 10756  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10756  
 gaccccaatc aaacc 15

<210> 10757  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10757  
 tctcactcag catgg 15

<210> 10758  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10758  
 caaggccaaa acagc 15

<210> 10759  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10759  
 ttcgtggtgg tgacg 15

<210> 10760  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10760  
 caggaaaagc caacc 15

<210> 10761  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	10761	
	gacgtggtcc agaac	15
<210>	10762	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10762	
	ctgctcgaat ggcta	15
<210>	10763	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10763	
	ctcgcgctat tgctg	15
<210>	10764	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10764	
	cgaagagcta cccga	15
<210>	10765	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10765	
	ccctcgcgct attgc	15
<210>	10766	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10766	
	gccaccgtgc tacaa	15
<210>	10767	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

<220>		
<223>	Primer	
<400>	10767	
tgccaccgtg	ctaca	15
<210>	10768	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10768	
ccaccgtgct	acaac	15
<210>	10769	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10769	
tcagccccag	atggt	15
<210>	10770	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10770	
cccaagggtt	accga	15
<210>	10771	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10771	
gccagggcgt	tcga	15
<210>	10772	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10772	
ttggcaccgc	caatc	15
<210>	10773	



SEQLIST-20480.TXT

```

<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10773
accagaatgg aggac 15

<210> 10774
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10774
acgtggtcca gaaca 15

<210> 10775
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10775
tgcgtcttgg ttcac 15

<210> 10776
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10776
ctcagcatgg caagg 15

<210> 10777
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10777
ggcatcgtat gggtt 15

<210> 10778
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10778

```

cctacggcgc taaca	SEQLIST-20480.TXT	15
<210> 10779		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10779		
ttcaactcct ggcag		15
<210> 10780		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10780		
gctgctgagg catct		15
<210> 10781		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10781		
ccaaaacagc gccga		15
<210> 10782		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10782		
gggccgcaaa ttgca		15
<210> 10783		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 10783		
cacgtagtcg cggta		15
<210> 10784		
<211> 15		
<212> DNA		
<213> Artificial Sequence		
<220>		

<223>	Primer	
<400>	10784	
	tgaggactg caatg	15
<210>	10785	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10785	
	cattggcacc cgcaa	15
<210>	10786	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10786	
	tgcaactgag ggagc	15
<210>	10787	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10787	
	gctacccgac gagtt	15
<210>	10788	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10788	
	gtcttggttc acagc	15
<210>	10789	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10789	
	agcatttggg agacg	15
<210>	10790	
<211>	15	
<212>	DNA	

```

<213> Artificial Sequence
<220>
<223> Primer
<400> 10790
ctaccagga aaagc 15
<210> 10791
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10791
tggttcacag ctctc 15
<210> 10792
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10792
ccctacggcg ctaac 15
<210> 10793
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10793
tggaaccaca gattc 15
<210> 10794
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10794
tggttagcgg aggtg 15
<210> 10795
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10795
gaagagctac ccgac 15

```

SEQLIST-20480.TXT

<210> 10796  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10796  
 tggctactac cgaag 15

<210> 10797  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10797  
 tcctggcagc agtag 15

<210> 10798  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10798  
 cctggcagca gtagg 15

<210> 10799  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10799  
 tcgcgctatt gctgc 15

<210> 10800  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10800  
 ctacccgacg agttc 15

<210> 10801  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	10801		
	caaccaacct	cgatc	15
<210>	10802		
<211>	15		
<212>	DNA		
<213>	Artificial	Sequence	
<220>			
<223>	Primer		
<400>	10802		
	agcatggcaa	ggagg	15
<210>	10803		
<211>	15		
<212>	DNA		
<213>	Artificial	Sequence	
<220>			
<223>	Primer		
<400>	10803		
	cgctattgct	gctag	15
<210>	10804		
<211>	15		
<212>	DNA		
<213>	Artificial	Sequence	
<220>			
<223>	Primer		
<400>	10804		
	accaacctcg	atctc	15
<210>	10805		
<211>	15		
<212>	DNA		
<213>	Artificial	Sequence	
<220>			
<223>	Primer		
<400>	10805		
	tctcctgctc	gaatg	15
<210>	10806		
<211>	15		
<212>	DNA		
<213>	Artificial	Sequence	
<220>			
<223>	Primer		
<400>	10806		
	gccgaccca	agggt	15
<210>	10807		
<211>	15		
<212>	DNA		
<213>	Artificial	Sequence	

<220>		
<223>	Primer	
<400>	10807	
	ctaggaactg gccca	15
<210>	10808	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10808	
	agaatggagg actgc	15
<210>	10809	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10809	
	tcgctcctca tcacg	15
<210>	10810	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10810	
	ctacggcgct aacaa	15
<210>	10811	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10811	
	tttgggtggac ccaca	15
<210>	10812	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10812	
	ctgctgctga ggcac	15
<210>	10813	
<211>	15	

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10813	
	tcaagcctct tctcg	15
<210>	10814	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10814	
	gggttgcaac tgagg	15
<210>	10815	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10815	
	agacgtggtc cagaa	15
<210>	10816	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10816	
	gaaggcatcg tatgg	15
<210>	10817	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10817	
	gctgccaccg tgcta	15
<210>	10818	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10818	
	cagggcggttc caatc	15



SEQLIST-20480.TXT

<210>	10819	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10819	
	ctgccaccgt gctac	15
<210>	10820	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10820	
	tcacagctct cactc	15
<210>	10821	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10821	
	caccaatagt ggtcc	15
<210>	10822	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10822	
	aggaactggc ccaga	15
<210>	10823	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10823	
	agcctcttct cgctc	15
<210>	10824	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	

SEQLIST-20480.TXT

<400>	10824	
	tggtggaccc acaga	15
<210>	10825	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10825	
	agagggaagc agagg	15
<210>	10826	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10826	
	agcctcgcca aaaac	15
<210>	10827	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10827	
	cttcctacg gcgct	15
<210>	10828	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10828	
	cttggttcac agctc	15
<210>	10829	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10829	
	agggcggttcc aatca	15
<210>	10830	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    10830
aatggctagc ggagg                                15

<210>    10831
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10831
gcgtcttggt tcaca                                15

<210>    10832
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10832
actcagcatg gcaag                                15

<210>    10833
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10833
gaaccagctt gagag                                15

<210>    10834
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10834
cccagaagct tcact                                15

<210>    10835
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10835
ggcgttccaa tcaac                                15

<210>    10836

```

```

<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10836
gcacccgcaa tccta 15

<210> 10837
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10837
gacccaagg ttac 15

<210> 10838
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10838
ggttcacagc tctca 15

<210> 10839
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10839
gcatcgtatg ggttg 15

<210> 10840
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10840
aactgaggga gcctt 15

<210> 10841
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10841

```

gttcacagct ctcac 15

<210> 10842  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10842  
ttgcaactga gggag 15

<210> 10843  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10843  
gctcagcccc agatg 15

<210> 10844  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10844  
ctgaggggagc cttga 15

<210> 10845  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10845  
agaggcggca gtcaa 15

<210> 10846  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 10846  
gggaaattct cctgc 15

<210> 10847  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>

```

<223>    Primer
<400>    10847
tgagggagcc ttgaa                                15
<210>    10848
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10848
ctactaccga agagc                                15
<210>    10849
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10849
cagcatggca aggag                                15
<210>    10850
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10850
gtcaagcctc ttctc                                15
<210>    10851
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10851
agctcagccc cagat                                15
<210>    10852
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10852
ggtggaccca cagat                                15
<210>    10853
<211>    15
<212>    DNA

```

```

<213> Artificial Sequence
<220>
<223> Primer
<400> 10853
aacaatgctg ccacc 15
<210> 10854
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10854
gcgctattgc tgcta 15
<210> 10855
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10855
tacgcagagg gaagc 15
<210> 10856
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10856
cctcgccaaa aacgt 15
<210> 10857
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10857
ccaaccaacc tcgat 15
<210> 10858
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10858
ggacccaat caaac 15

```

<210> 10859  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10859  
 gccctcgcgc tattg 15

<210> 10860  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10860  
 cgcagaggga agcag 15

<210> 10861  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10861  
 ctagcggagg tgggtg 15

<210> 10862  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10862  
 cggggaccaa gacct 15

<210> 10863  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10863  
 gaggtggtga aactg 15

<210> 10864  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer



<400>	10864	
	tgctcgaatg gctag	15
<210>	10865	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10865	
	caatgctgcc accgt	15
<210>	10866	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10866	
	cccagatggt acttc	15
<210>	10867	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10867	
	ttctacgcag aggga	15
<210>	10868	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10868	
	cagctctcac tcagc	15
<210>	10869	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10869	
	aagcagaggc ggcag	15
<210>	10870	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

<220>		
<223>	Primer	
<400>	10870	
	caactgaggg agcct	15
<210>	10871	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10871	
	ggaactggcc cagaa	15
<210>	10872	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10872	
	tgctgccacc gtgct	15
<210>	10873	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10873	
	agccccagat ggtac	15
<210>	10874	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10874	
	gcctcttctc gctcc	15
<210>	10875	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10875	
	gcatttgga gacgt	15
<210>	10876	
<211>	15	

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10876	
	ggcaccgcga atcct	15
<210>	10877	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10877	
	ctcgctcctc atcac	15
<210>	10878	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10878	
	acagctctca ctcag	15
<210>	10879	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10879	
	acccaggaaa agcca	15
<210>	10880	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10880	
	gcctcgccaa aaacg	15
<210>	10881	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10881	
	cagagggaag cagag	15

SEQLIST-20480.TXT

<210> 10882  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10882  
 acgcagaggg aagca 15

<210> 10883  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10883  
 ctgctgaggc atcta 15

<210> 10884  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10884  
 ctcttctcgc tcctc 15

<210> 10885  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10885  
 ggcccagaag cttca 15

<210> 10886  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10886  
 ttcggggacc aagac 15

<210> 10887  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

SEQLIST-20480.TXT

<400>	10887	
tttgggagac	gtggt	15
<210>	10888	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10888	
gaaatttcgg	ggacc	15
<210>	10889	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10889	
ggtccagaac	aaacc	15
<210>	10890	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10890	
ggccaaactg	tcact	15
<210>	10891	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10891	
ttccctacgg	cgcta	15
<210>	10892	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10892	
cactcagcat	ggcaa	15
<210>	10893	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    10893
gccgcaaatt gcaca                                15

<210>    10894
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10894
ctcctggcag cagta                                15

<210>    10895
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10895
catttgggag acgtg                                15

<210>    10896
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10896
gagctcagcc ccaga                                15

<210>    10897
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10897
cgaatggcta gcgga                                15

<210>    10898
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10898
cagaggcggc agtca                                15

<210>    10899

```

```

<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10899
tgcaatgggg caagg 15

<210> 10900
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10900
gctactaccg aagag 15

<210> 10901
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10901
ggacccacag attca 15

<210> 10902
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10902
cacccaaaga ccaca 15

<210> 10903
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10903
gctctcactc agcat 15

<210> 10904
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10904

```

ggaggtggtg aaact 15  
<210> 10905  
<211> 15  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Primer  
  
<400> 10905  
gttgcaactg aggga 15  
  
<210> 10906  
<211> 15  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Primer  
  
<400> 10906  
atggctagcg gaggt 15  
  
<210> 10907  
<211> 15  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Primer  
  
<400> 10907  
cgtgctacaa cttcc 15  
  
<210> 10908  
<211> 15  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Primer  
  
<400> 10908  
gaatggagga ctgca 15  
  
<210> 10909  
<211> 15  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Primer  
  
<400> 10909  
aagagctcag cccca 15  
  
<210> 10910  
<211> 15  
<212> DNA  
<213> Artificial Sequence  
  
<220>



```

<223>    Primer
<400>    10910
gaatggctag cggag                                15
<210>    10911
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10911
cgctcctcat cacgt                                15
<210>    10912
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10912
ccccagatgg tactt                                15
<210>    10913
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10913
caccgtgcta caact                                15
<210>    10914
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10914
ccagcttgag agcaa                                15
<210>    10915
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    10915
cgtggtccag aacaa                                15
<210>    10916
<211>    15
<212>    DNA

```

<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10916	
	gcatggcaag gagga	15
<210>	10917	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10917	
	cctcgcgcta ttgct	15
<210>	10918	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10918	
	gaactggccc agaag	15
<210>	10919	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10919	
	cgcgctattg ctgct	15
<210>	10920	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10920	
	gctagcggag gtggt	15
<210>	10921	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10921	
	tctacgcaga gggaa	15

SEQLIST-20480.TXT

<210> 10922  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10922  
 aagcctcttc tcgct 15

<210> 10923  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10923  
 gcagtcaagc ctctt 15

<210> 10924  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10924  
 gtggtggtga cggca 15

<210> 10925  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10925  
 tggtggtgac ggcaa 15

<210> 10926  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10926  
 ggaaatttcg gggac 15

<210> 10927  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	10927		
	ggcagcagta gggga		15
<210>	10928		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10928		
	gaagcagagg cggca		15
<210>	10929		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10929		
	cagtcaagcc tcttc		15
<210>	10930		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10930		
	ggctactacc gaaga		15
<210>	10931		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10931		
	cttcacttcc ctacg		15
<210>	10932		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10932		
	ggggaaattc tcctg		15
<210>	10933		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		

```

<220>
<223>    Primer

<400>    10933
cagaatggag gactg                                15

<210>    10934
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10934
gggcaaggcc aaaac                                15

<210>    10935
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10935
atttgggaga cgtgg                                15

<210>    10936
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10936
ctacgcagag ggaag                                15

<210>    10937
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10937
atggcaagga ggaac                                15

<210>    10938
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10938
agcggaggtg gtgaa                                15

<210>    10939
<211>    15

```

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10939	
	actgccctcg cgcta	15
<210>	10940	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10940	
	tggcaaggag gaact	15
<210>	10941	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10941	
	gaggcggcag tcaag	15
<210>	10942	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10942	
	gccccagatg gtact	15
<210>	10943	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10943	
	cctcttctcg ctcct	15
<210>	10944	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10944	
	cggaggtggt gaaac	15

SEQLIST-20480.TXT

<210> 10945  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10945  
 agcagaggcg gcagt 15

<210> 10946  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10946  
 ctctcactca gcatg 15

<210> 10947  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10947  
 ttctcgctcc tcatc 15

<210> 10948  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10948  
 tcttctcgct cctca 15

<210> 10949  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 10949  
 ggggaccaag accta 15

<210> 10950  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	10950	
	ccagaatgga ggact	15
<210>	10951	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10951	
	cagccccaga tggta	15
<210>	10952	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10952	
	ctggtaaagg ccaac	15
<210>	10953	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10953	
	atttcgggga ccaag	15
<210>	10954	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10954	
	acggcgctaa caaag	15
<210>	10955	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10955	
	gctcctcatc acgta	15
<210>	10956	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	



SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    10956
cctacccagg aaaag                                15

<210>    10957
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10957
ggcaaggagg aactt                                15

<210>    10958
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10958
ggcaaggcca aaaca                                15

<210>    10959
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10959
cttctcgctc ctcac                                15

<210>    10960
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10960
catggcaagg aggaa                                15

<210>    10961
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    10961
ggtccagatg accaa                                15

<210>    10962

```

```

<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10962
gcagagggaa gcaga 15

<210> 10963
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10963
gactgcaatg gggca 15

<210> 10964
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10964
ggtgacggca aaatg 15

<210> 10965
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10965
gcagcagtag gggaa 15

<210> 10966
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10966
actgcaatgg ggcaa 15

<210> 10967
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 10967

```

ctaccgaaga gctac	15
<210> 10968	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10968	
ctgcaatggg gcaag	15
<210> 10969	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10969	
tttcggggac caaga	15
<210> 10970	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10970	
ctcctcatca cgtag	15
<210> 10971	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10971	
gcttcacttc cctac	15
<210> 10972	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10972	
ccaggaaaag ccaac	15
<210> 10973	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	

<223>	Primer	
<400>	10973	
	tctcgctcct catca	15
<210>	10974	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10974	
	ccaacctcga tctct	15
<210>	10975	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10975	
	agatgcctca gcagc	15
<210>	10976	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10976	
	tgttagcgcc gtagg	15
<210>	10977	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10977	
	accacgaact cgtcg	15
<210>	10978	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10978	
	accaccacga actcg	15
<210>	10979	
<211>	15	
<212>	DNA	

```

<213> Artificial Sequence
<220>
<223> Primer
<400> 10979
attggaacgc cctgg 15
<210> 10980
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10980
tgtggtcttt ggggtg 15
<210> 10981
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10981
tagccattcg agcag 15
<210> 10982
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10982
gctagccatt cgagc 15
<210> 10983
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10983
cgctagccat tcgag 15
<210> 10984
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 10984
agccattcga gcagg 15

```

<210>	10985	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10985	
	gattggaacg ccctg	15
<210>	10986	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10986	
	gttgcaaccc atacg	15
<210>	10987	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10987	
	ggtgccaatg tggtc	15
<210>	10988	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10988	
	acgtctccca aatgc	15
<210>	10989	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10989	
	tctgcgtaga agcct	15
<210>	10990	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	

<400>	10990		
	cgagggcagt ttcac		15
<210>	10991		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10991		
	tgagagctgt gaacc		15
<210>	10992		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10992		
	tactgctgcc aggag		15
<210>	10993		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10993		
	ttgccatgct gagtg		15
<210>	10994		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10994		
	aactcgtcgg gtagc		15
<210>	10995		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	10995		
	attaccgcga ctacg		15
<210>	10996		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		

<220>		
<223>	Primer	
<400>	10996	
	aatctgtggg tccac	15
<210>	10997	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10997	
	taccgcgact acgtg	15
<210>	10998	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10998	
	gggtttgttc tggac	15
<210>	10999	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	10999	
	tcggcgctgt tttgg	15
<210>	11000	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11000	
	atgcctcagc agcag	15
<210>	11001	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11001	
	gttctggacc acgtc	15
<210>	11002	
<211>	15	



```

<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11002
cgggtgccaa tgtgg 15

<210> 11003
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11003
tccgctagcc attcg 15

<210> 11004
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11004
tagcacggtg gcagc 15

<210> 11005
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11005
actcgtcggg tagct 15

<210> 11006
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11006
tgctgccagg agttg 15

<210> 11007
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11007
taggattgcg ggtgc 15

```

SEQLIST-20480.TXT

<210> 11008  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11008  
 ttgctctcaa gctgg 15

<210> 11009  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11009  
 agggcagttt cacca 15

<210> 11010  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11010  
 ccttgccatg ctgag 15

<210> 11011  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11011  
 acgaactcgt cgggt 15

<210> 11012  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11012  
 aagaggcttg actgc 15

<210> 11013  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

SEQLIST-20480.TXT

<400>	11013	
	gcgggtgccca atgtg	15
<210>	11014	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11014	
	ctcgtcgggt agctc	15
<210>	11015	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11015	
	atctgtgggt ccacc	15
<210>	11016	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11016	
	caccacgaac tcgtc	15
<210>	11017	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11017	
	tgtagcacgg tggca	15
<210>	11018	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11018	
	tgctctcaag ctggt	15
<210>	11019	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    11019
tggggtccacc aaatg                                15

<210>    11020
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11020
cctactgctg ccagg                                15

<210>    11021
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11021
atcgaggttg gttgg                                15

<210>    11022
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11022
accatacga tgcct                                15

<210>    11023
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11023
tgaatctgtg ggtcc                                15

<210>    11024
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11024
tgttctggac cacgt                                15

<210>    11025

```

```

<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11025
caccaccacg aactc 15

<210> 11026
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11026
ccctcagttg caacc 15

<210> 11027
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11027
gggcactacg ttggt 15

<210> 11028
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11028
acgttttttg cgagg 15

<210> 11029
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11029
gatgcctcag cagca 15

<210> 11030
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11030

```

ttctgggccca gttcc 15

<210> 11031  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11031  
ctggaccact attgg 15

<210> 11032  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11032  
agttgtagca cggtg 15

<210> 11033  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11033  
acggtggcag cattg 15

<210> 11034  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11034  
cctctgcgta gaagc 15

<210> 11035  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11035  
tagatgcctc agcag 15

<210> 11036  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>

```

<223>    Primer
<400>    11036
agcttctggg ccagt                                15
<210>    11037
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11037
atttgcggcc caatg                                15
<210>    11038
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11038
taaaccttgg ggtcg                                15
<210>    11039
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11039
tcgggtagct cttcg                                15
<210>    11040
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11040
ctactgctgc cagga                                15
<210>    11041
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11041
cgaggttggt tggct                                15
<210>    11042
<211>    15
<212>    DNA

```

<213> Artificial Sequence

<220>

<223> Primer

<400> 11042

actgctgcca ggagt

15

<210> 11043

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 11043

tcaaggctcc ctcag

15

<210> 11044

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 11044

ttgcgggtgc caatg

15

<210> 11045

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 11045

accgcgacta cgtga

15

<210> 11046

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 11046

gaagaggctt gactg

15

<210> 11047

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 11047

gcttgagtga cgttg

15



SEQLIST-20480.TXT

<210> 11048  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11048  
 caaccatac gatgc 15

<210> 11049  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11049  
 gagggcagtt tcacc 15

<210> 11050  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11050  
 tctgtgggtc cacca 15

<210> 11051  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11051  
 ctcttgcca tgctg 15

<210> 11052  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11052  
 gagaagaggc ttgac 15

<210> 11053  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	11053	
	gtttgattgg ggtcc	15
<210>	11054	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11054	
	ccgctagcca ttcga	15
<210>	11055	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11055	
	ttgttagcgc cgtag	15
<210>	11056	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11056	
	cgcgagggca gtttc	15
<210>	11057	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11057	
	tgcgggtgcc aatgt	15
<210>	11058	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11058	
	gggcagtttc accac	15
<210>	11059	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

```

<220>
<223>    Primer

<400>    11059
ctcagttgca accca                                15

<210>    11060
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11060
gggtgccaat gtggt                                15

<210>    11061
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11061
ccctactgct gccag                                15

<210>    11062
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11062
tgccatgctg agtga                                15

<210>    11063
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11063
tgattggaac gccct                                15

<210>    11064
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11064
gttgtagcac ggtgg                                15

<210>    11065
<211>    15

```

```

<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11065
tgggccagtt cctag 15

<210> 11066
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11066
gtcaccacca cgaac 15

<210> 11067
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11067
ttaccgcgac tacgt 15

<210> 11068
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11068
ccaccacgaa ctcgt 15

<210> 11069
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11069
agtcctccat tctgg 15

<210> 11070
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11070
tgccccattg cagtc 15

```

SEQLIST-20480.TXT

<210>	11071	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11071	
	ggggcactac gttgg	15
<210>	11072	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11072	
	ttgttctgga ccacg	15
<210>	11073	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11073	
	ttaggattgc gggtg	15
<210>	11074	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11074	
	ggcactacgt tggtt	15
<210>	11075	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11075	
	tccctctgcg tagaa	15
<210>	11076	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	

SEQLIST-20480.TXT

<400>	11076	
ctgtgaacca agacg		15
<210>	11077	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11077	
tctggaccac gtctc		15
<210>	11078	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11078	
ccattcgagc aggag		15
<210>	11079	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11079	
gcttttcctg ggtag		15
<210>	11080	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11080	
cggtggcagc attgt		15
<210>	11081	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11081	
ctagccattc gagca		15
<210>	11082	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    11082
ctgctgccag gagtt                                15

<210>    11083
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11083
cgactacgtg atgag                                15

<210>    11084
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11084
ctgtgggtcc accaa                                15

<210>    11085
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11085
gtgaaccaag acgca                                15

<210>    11086
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11086
ggccagttcc taggt                                15

<210>    11087
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11087
gaactcgtcg ggtag                                15

<210>    11088

```

```

<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11088
agcaatagcg cgagg 15

<210> 11089
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11089
tgactgccgc ctctg 15

<210> 11090
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11090
ctcttcggta gtagc 15

<210> 11091
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11091
agagatcgag gttgg 15

<210> 11092
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11092
gatcgagggtt ggttg 15

<210> 11093
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11093

```



gaagcttctg ggcca 15

<210> 11094  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11094  
ccgtcaccac cacga 15

<210> 11095  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11095  
gccatgctga gtgag 15

<210> 11096  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11096  
cttttcctgg gtagg 15

<210> 11097  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11097  
tcctccttgc catgc 15

<210> 11098  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11098  
cgaactcgtc gggta 15

<210> 11099  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>

```

<223>    Primer
<400>    11099
agtttcacca cctcc                                15
<210>    11100
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11100
ggaagttgta gcacg                                15
<210>    11101
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11101
tgccgtcacc accac                                15
<210>    11102
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11102
tctgcttccc tctgc                                15
<210>    11103
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11103
tcgtcgggta gctct                                15
<210>    11104
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11104
gaggttggtt ggctt                                15
<210>    11105
<211>    15
<212>    DNA

```

```

<213> Artificial Sequence
<220>
<223> Primer
<400> 11105
cgtcaccacc acgaa 15
<210> 11106
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11106
gtggtctttg ggtgt 15
<210> 11107
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11107
tcaccaccac gaact 15
<210> 11108
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11108
cgtctcccaa atgct 15
<210> 11109
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11109
ggaccactat tgggtg 15
<210> 11110
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11110
cttcggtagt agcca 15

```

<210> 11111  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11111  
 gctccctcag ttgca 15

<210> 11112  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11112  
 gaatctgtgg gtcca 15

<210> 11113  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11113  
 gtagcacggt ggcag 15

<210> 11114  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11114  
 gattgcgggt gccaa 15

<210> 11115  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11115  
 gggtagctct tcggt 15

<210> 11116  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	11116		
	cacctccgct agcca		15
<210>	11117		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	11117		
	gccccattgc agtcc		15
<210>	11118		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	11118		
	gagagctgtg aacca		15
<210>	11119		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	11119		
	ttgccgtcac cacca		15
<210>	11120		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	11120		
	atctggggct gagct		15
<210>	11121		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	11121		
	acctccgcta gccat		15
<210>	11122		
<211>	15		
<212>	DNA		
<213>	Artificial Sequence		

<220>		
<223>	Primer	
<400>	11122	
	gctctcaagc tgggt	15
<210>	11123	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11123	
	ctggaccacg tctcc	15
<210>	11124	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11124	
	tccttgccat gctga	15
<210>	11125	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11125	
	aggagcgaga agagg	15
<210>	11126	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11126	
	ggctccctca gttgc	15
<210>	11127	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11127	
	attcaaggct ccctc	15
<210>	11128	
<211>	15	

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11128	
	ctctcaagct gggttc	15
<210>	11129	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11129	
	cttgccatgc tgagt	15
<210>	11130	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11130	
	gtcatctgga ccact	15
<210>	11131	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11131	
	ttgcggccca atgtt	15
<210>	11132	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11132	
	cttctgggcc agttc	15
<210>	11133	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11133	
	gagatcgagg ttggt	15

SEQLIST-20480.TXT

<210>	11134	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11134	
	cccattgcag tcctc	15
<210>	11135	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11135	
	ccattgcagt cctcc	15
<210>	11136	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11136	
	taccatctgg ggctg	15
<210>	11137	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11137	
	ccctctgcgt agaag	15
<210>	11138	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11138	
	cttgcccat tgcag	15
<210>	11139	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	



SEQLIST-20480.TXT

<400>	11139	
	gcaacccata cgatg	15
<210>	11140	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11140	
	catctggggc tgagc	15
<210>	11141	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11141	
	cccctactgc tgcca	15
<210>	11142	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11142	
	gtgagagctg tgaac	15
<210>	11143	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11143	
	ggcttttcct gggta	15
<210>	11144	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11144	
	gactacgtga tgagg	15
<210>	11145	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

<220>		
<223>	Primer	
<400>	11145	
	gcggcccaat gtttg	15
<210>	11146	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11146	
	ccatctgggg ctgag	15
<210>	11147	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11147	
	cgcgactacg tgatg	15
<210>	11148	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11148	
	accatctggg gctga	15
<210>	11149	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11149	
	gcttctgggc cagtt	15
<210>	11150	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11150	
	aggctccctc agttg	15
<210>	11151	

```

<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11151
tgctgagtga gagct 15

<210> 11152
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11152
tttgcggccc aatgt 15

<210> 11153
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11153
gcacggtggc agcat 15

<210> 11154
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11154
cgtcgggtag ctctt 15

<210> 11155
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11155
gtttttggcg aggct 15

<210> 11156
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11156

```

gctcttcggt agtag	15
<210> 11157	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11157	
gcgagggcag tttca	15
<210> 11158	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11158	
cttgactgcc gcctc	15
<210> 11159	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11159	
cttccctctg cgtag	15
<210> 11160	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11160	
gccattcgag cagga	15
<210> 11161	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11161	
ttttgccgtc accac	15
<210> 11162	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	

<223>	Primer	
<400>	11162	
	ggaccacgtc tccca	15
<210>	11163	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11163	
	ctgcgtagaa gcctt	15
<210>	11164	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11164	
	ttagcgccgt aggga	15
<210>	11165	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11165	
	cagtttcacc acctc	15
<210>	11166	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11166	
	gctgagtgag agctg	15
<210>	11167	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11167	
	ggttggcttt tcctg	15
<210>	11168	
<211>	15	
<212>	DNA	

```

<213> Artificial Sequence
<220>
<223> Primer
<400> 11168
ggtaaaccctt ggggt 15
<210> 11169
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11169
atgctgagtg agagc 15
<210> 11170
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11170
cagcaatagc gcgag 15
<210> 11171
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11171
atagcgcgag ggcag 15
<210> 11172
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11172
gcctctgctt ccctc 15
<210> 11173
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11173
ctgttttggc cttgc 15

```

<210> 11174  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11174  
 ttctggacca cgtct 15

<210> 11175  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11175  
 agcacggtgg cagca 15

<210> 11176  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11176  
 cccatacgat gcctt 15

<210> 11177  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11177  
 ctctgcttcc ctctg 15

<210> 11178  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11178  
 tggcttttcc tgggt 15

<210> 11179  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	11179	
gccagttcct aggta		15
<210>	11180	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11180	
ttcccctact gctgc		15
<210>	11181	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11181	
gtgatgagga gcgag		15
<210>	11182	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11182	
tgcctcagca gcaga		15
<210>	11183	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11183	
ggcctcgagg gaatc		15
<210>	11184	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11184	
ggtcttggtc cccga		15
<210>	11185	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	



<220>		
<223>	Primer	
<400>	11185	
	gaggagcgag aagag	15
<210>	11186	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11186	
	tgcttccctc tgcgt	15
<210>	11187	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11187	
	ttccctctgc gtaga	15
<210>	11188	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11188	
	agttcctcct tgcca	15
<210>	11189	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11189	
	ccgcgactac gtgat	15
<210>	11190	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11190	
	gtgccaatgt ggtct	15
<210>	11191	
<211>	15	

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11191	
	cacgtctccc aaatg	15
<210>	11192	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11192	
	actgccgcct ctgct	15
<210>	11193	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11193	
	gctgtgaacc aagac	15
<210>	11194	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11194	
	gttggccttt accag	15
<210>	11195	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11195	
	tgcagtcctc cattc	15
<210>	11196	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11196	
	agcgccgtag ggaag	15

SEQLIST-20480.TXT

<210> 11197  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11197  
ggtggcagca ttgtt 15

<210> 11198  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11198  
gtaccatctg gggct 15

<210> 11199  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11199  
gtcctccatt ctggt 15

<210> 11200  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11200  
gggtccacca aatgt 15

<210> 11201  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11201  
ctggggctga gctct 15

<210> 11202  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400>	11202	
	tgccgcctct gcttc	15
<210>	11203	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11203	
	ccccattgca gtcct	15
<210>	11204	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11204	
	ctttgtagc gccgt	15
<210>	11205	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11205	
	gcctcagcag cagat	15
<210>	11206	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11206	
	cattttgccg tcacc	15
<210>	11207	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11207	
	cattgcagtc ctcca	15
<210>	11208	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    11208
cctccttgcc atgct                                15

<210>    11209
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11209
ttcaccacct ccgct                                15

<210>    11210
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11210
gaccacgtct ccaa                                15

<210>    11211
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11211
ctggcctcga gggaa                                15

<210>    11212
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11212
gagctgtgaa ccaag                                15

<210>    11213
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11213
gcagtttcac cacct                                15

<210>    11214

```

```

<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11214
gcagcaatag cgcga 15

<210> 11215
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11215
gctgccagga gttga 15

<210> 11216
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11216
gtagctcttc ggtag 15

<210> 11217
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11217
tgagtgagag ctgtg 15

<210> 11218
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11218
cgtgatgagg agcga 15

<210> 11219
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11219

```

cgctcttgct tccct 15

<210> 11220  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11220  
cggcccaatg tttgt 15

<210> 11221  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11221  
gcttgactgc cgcct 15

<210> 11222  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11222  
cgccgtaggg aagtg 15

<210> 11223  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11223  
gcgactacgt gatga 15

<210> 11224  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11224  
caaggctccc tcagt 15

<210> 11225  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>

```

<223>    Primer
<400>    11225
aaggctccct cagtt                                15
<210>    11226
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11226
tggggctgag ctctt                                15
<210>    11227
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11227
gtcttgggtcc ccgaa                                15
<210>    11228
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11228
cagtcctcca ttctg                                15
<210>    11229
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11229
gagcgagaag aggct                                15
<210>    11230
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11230
gcgagaagag gcttg                                15
<210>    11231
<211>    15
<212>    DNA

```



<213> Artificial Sequence

<220>

<223> Primer

<400> 11231  
gtccccgaaa tttcc

15

<210> 11232

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 11232  
tacgtgatga ggagc

15

<210> 11233

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 11233  
gttggctttt cctgg

15

<210> 11234

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 11234  
gtagggaagt gaagc

15

<210> 11235

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 11235  
caccacctcc gctag

15

<210> 11236

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 11236  
agcgagaaga ggctt

15

<210> 11237  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11237  
 atgaggagcg agaag 15

<210> 11238  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11238  
 tcaccacctc cgcta 15

<210> 11239  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11239  
 ttcctccttg ccatg 15

<210> 11240  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11240  
 gccttgcccc attgc 15

<210> 11241  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11241  
 agcgcgaggg cagtt 15

<210> 11242  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	11242	
	catgctgagt gagag	15
<210>	11243	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11243	
	tttcccctac tgctg	15
<210>	11244	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11244	
	tgaggagcga gaaga	15
<210>	11245	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11245	
	ctgagtgaga gctgt	15
<210>	11246	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11246	
	gcctcgaggg aatct	15
<210>	11247	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11247	
	ggtagctctt cggtg	15
<210>	11248	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Primer	
<400>	11248	
cctcgaggga	atcta	15
<210>	11249	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11249	
ttgccccatt	gcagt	15
<210>	11250	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11250	
gccgtaggga	agtga	15
<210>	11251	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11251	
tagcgccgta	gggaa	15
<210>	11252	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11252	
ttcaaggctc	cctca	15
<210>	11253	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11253	
ccgtagggaa	gtgaa	15
<210>	11254	
<211>	15	

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11254	
	ttgactgccg cctct	15
<210>	11255	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11255	
	gtcgggtagc tcttc	15
<210>	11256	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11256	
	gcttcctct gcgta	15
<210>	11257	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11257	
	gcagtcctcc attct	15
<210>	11258	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11258	
	cattcgagca ggaga	15
<210>	11259	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11259	
	gttcctcctt gccat	15

SEQLIST-20480.TXT

```

<210> 11260
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11260
tagcgcgagg gcagt 15

<210> 11261
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11261
ctgccgcctc tgctt 15

<210> 11262
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11262
cgagaagagg cttga 15

<210> 11263
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11263
gggctgagct ctttc 15

<210> 11264
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11264
ccatacgatg ctttc 15

<210> 11265
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

```

SEQLIST-20480.TXT

<400>	11265	
ctgggccagt tccta		15
<210>	11266	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11266	
gagtgagagc tgtga		15
<210>	11267	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11267	
ctccgctagc cattc		15
<210>	11268	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11268	
cctctgcttc cctct		15
<210>	11269	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11269	
ctgccaggag ttgaa		15
<210>	11270	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11270	
tttggccttg cccca		15
<210>	11271	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    11271
ccttgcccca ttgca                                15

<210>    11272
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11272
ggccttgccc cattg                                15

<210>    11273
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11273
ctacgtgatg aggag                                15

<210>    11274
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11274
ccatgctgag tgaga                                15

<210>    11275
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11275
ggctgagctc tttca                                15

<210>    11276
<211>    15
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11276
cgtagggaag tgaag                                15

<210>    11277

```



```

<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11277
ggggggcact acgtt 15

<210> 11278
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11278
ggcgaggctt tttag 15

<210> 11279
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11279
tgatgaggag cgaga 15

<210> 11280
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11280
ttggccttgc cccat 15

<210> 11281
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11281
gggggcacta cgttg 15

<210> 11282
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11282

```

gcgccgtagg gaagt	15
<210> 11283	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11283	
gaccaagacc taatcagaca a	21
<210> 11284	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11284	
accaagacct aatcagacaa	20
<210> 11285	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11285	
gaccaagacc taatcagaca	20
<210> 11286	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11286	
tcagacaagg aactgattac a	21
<210> 11287	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11287	
cagaacaaac ccaaggaaat	20
<210> 11288	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	

```

<223>    Primer
<400>    11288
ggaccaagac ctaatcagac                20
<210>    11289
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11289
atcagacaag gaactgatta ca            22
<210>    11290
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11290
caagacctaa tcagacaagg aa            22
<210>    11291
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11291
aatcagacaa ggaactgatt aca          23
<210>    11292
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11292
gggaccaaga cctaadcaga c            21
<210>    11293
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11293
aagacctaata cagacaagga a            21
<210>    11294
<211>    20
<212>    DNA

```

```

<213> Artificial Sequence
<220>
<223> Primer

<400> 11294
cagacaagga actgattaca 20

<210> 11295
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11295
gacaaggaac tgattacaaa c 21

<210> 11296
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11296
cggggaccaa gacctaata 18

<210> 11297
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11297
ggagacgtgg tccagaaca 19

<210> 11298
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11298
gagacgtggt ccagaaca 18

<210> 11299
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11299
gaccaagacc taatcagaca ag 22

```

<210> 11300  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11300  
 ccagaacaaa cccaaggaaa 20

<210> 11301  
 <211> 17  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11301  
 ttcggggacc aagacct 17

<210> 11302  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11302  
 agacctaatc agacaaggaa ct 22

<210> 11303  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11303  
 agacctaatc agacaaggaa ct 22

<210> 11304  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11304  
 tagagaacag atctacaaga gat 23

<210> 11305  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	11305	
	tagagaacag atctacaaga g	21
<210>	11306	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11306	
	gtttagagaa cagatctaca ag	22
<210>	11307	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11307	
	ttagagaaca gatctacaag ag	22
<210>	11308	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11308	
	tttagagaac agatctacaa gag	23
<210>	11309	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11309	
	ttagagaaca gatctacaag aga	23
<210>	11310	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11310	
	gtttagagaa cagatctaca aga	23
<210>	11311	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

```

<220>
<223>    Primer

<400>    11311
gagaacagat ctacaagaga                                20

<210>    11312
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11312
tcgtttagag aacagatcta c                                21

<210>    11313
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11313
ttagagaac agatctacaa ga                                22

<210>    11314
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11314
cgtttagaga acagatctac a                                21

<210>    11315
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11315
tctacaagag atcgaggttg                                20

<210>    11316
<211>    19
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11316
aagagatcga ggttggttg                                19

<210>    11317
<211>    22

```

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11317  
ttcgtttaga gaacagatct ac 22

<210> 11318  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11318  
cgtttagaga acagatctac aa 22

<210> 11319  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11319  
caagagatcg aggttggttg 20

<210> 11320  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11320  
tcgtttagag aacagatcta ca 22

<210> 11321  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11321  
ttgttcggt tagagaacag at 22

<210> 11322  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11322  
ttgttcgttt agagaacaga tc 22



SEQLIST-20480.TXT

<210> 11323  
 <211> 1869  
 <212> DNA  
 <213> SARS coronavirus

<400> 11323  
 cctaggcata cccaaaggac atgacctacc gtagactcat ctctatgatg ggttttcaaaa 60  
 tgaattacca agtcaatgggt taccctaata tgtttatcac ccgcgaagaa gctattcgtc 120  
 acgttcgtgc gtggattggc tttgatgtag agggctgtca tgcaactaga gatgctgtgg 180  
 gtactaacct acctctccag ctaggatttt ctacagggtg taacttagta gctgtaccga 240  
 ctggttatgt tgacactgaa aataacacag aattcaccag agttaatgca aaacctccac 300  
 caggtgacga gtttaaacat cttataccac tcatgtataa aggcctgccc tggaaatgtag 360  
 tgcgtattaa gatagtacaa atgctcagtg atacactgaa aggattgtca gacagagtcg 420  
 tgttcgtcct ttgggcgcat ggctttgagc ttacatcaat gaagtacttt gtcaagattg 480  
 gacctgaaag aacgtgttgt ctgtgtgaca aacgtgcaac ttgcttttct acttcatcag 540  
 atacttgacc ctgctggaac cattctgtgg gttttgacta tgtctataac ccatttatga 600  
 ttgatgttca gcagtggggc tttacgggta accttcagag taaccatgac caacattgcc 660  
 aggtacatgg aaatgcacat gtggctagtt gtgatgctat catgactaga tgttttagcag 720  
 tccatgagtg ctttggttaag cgcgttgatt ggtctgttga ataccctatt ataggagatg 780  
 aactggaggt taattctgct tgcagaaaag tacaacacat ggttggtgaag tctgcattgc 840  
 ttgctgataa gtttccagtt cttcatgaca taggaaatcc aaaggctatc aagtgtgtgc 900  
 ctcaggctga agtagaatgg aagttctacg atgctcagcc atgtagtgac aaagcttaca 960  
 aaatagagga actcttctat tcttatgcta tacatcacga taaattcact gatgggtgtt 1020  
 gtttggtttg gaattgtaac gttgatcgtt acccagccaa tgcaattgtg tgtagggttg 1080  
 acacaagagt ctgtgcaaac ttgaacttac caggctgtga tgggtgtagt ttgtatgtga 1140  
 ataagcatgc attccacact ccagctttcg ataaaagtgc atttactaat ttaaagcaat 1200  
 tgccttttct ttactattct gatagtccct gtgagtctca tggcaaacaa gtagtgctcg 1260  
 atattgatta tgttccactc aaatctgcta cgtgtattac acgatgcaat ttaggtggtg 1320  
 ctgtttgcag acaccatgca aatgagtacc gacagtactt ggatgcatat aatatgatga 1380  
 tttctgctgg atttagccta tggatttaca aacaatttga tacttataac ctgtggaata 1440  
 catttaccag gttacagagt ttagaaaatg tggcttataa tgttggttaat aaaggacact 1500  
 ttgatggaca gcgcggcgaa gcacctgttt ccatcattaa taatgctgtt tacacaaagg 1560  
 tagatgggat tgatgtggag atctttgaaa ataagacaac acttcctgtt aatgtttgat 1620  
 ttgagctttg ggctaagcgt aacattaaac cagtgccaga gattaagata ctcaataatt 1680  
 tgggtgttga tatcgtgct aatactgtaa tctgggacta caaaagagaa gccccagcac 1740  
 atgtatctac aatagggtgc tgcacaatga ctgacattgc caagaaacct actgagagtg 1800  
 cttgttcttc acttactgtc ttgtttgatg gtgagagtga aggacaggta gaccttttta 1860  
 gaaacgcc

<210> 11324  
 <211> 616  
 <212> PRT  
 <213> SARS coronavirus

<400> 11324  
 Met Thr Tyr Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met Asn Tyr  
 1 5 10 15  
 Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu Ala Ile  
 20 25 30  
 Arg His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys His Ala  
 35 40 45  
 Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly Phe Ser  
 50 55 60  
 Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp Thr Glu  
 65 70 75 80  
 Asn Asn Thr Glu Phe Thr Arg Val Asn Ala Lys Pro Pro Pro Gly Asp  
 85 90 95

SEQLIST-20480.TXT

Gln Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro Trp Asn  
 100 105 110  
 Val Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu Lys Gly  
 115 120 125  
 Leu Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe Glu Leu  
 130 135 140  
 Thr Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr Cys Cys  
 145 150 155 160  
 Leu Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp Thr Tyr  
 165 170 175  
 Ala Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn Pro Phe  
 180 185 190  
 Met Ile Asp Val Gln Gln Trp Gly Phe Thr Gly Asn Leu Gln Ser Asn  
 195 200 205  
 His Asp Gln His Cys Gln Val His Gly Asn Ala His Val Ala Ser Cys  
 210 215 220  
 Asp Ala Ile Met Thr Arg Cys Leu Ala Val His Glu Cys Phe Val Lys  
 225 230 235 240  
 Arg Val Asp Trp Ser Val Glu Tyr Pro Ile Ile Gly Asp Glu Leu Arg  
 245 250 255  
 Val Asn Ser Ala Cys Arg Lys Val Gln His Met Val Val Lys Ser Ala  
 260 265 270  
 Leu Leu Ala Asp Lys Phe Pro Val Leu His Asp Ile Gly Asn Pro Lys  
 275 280 285  
 Ala Ile Lys Cys Val Pro Gln Ala Glu Val Glu Trp Lys Phe Tyr Asp  
 290 295 300  
 Ala Gln Pro Cys Ser Asp Lys Ala Tyr Lys Ile Glu Glu Leu Phe Tyr  
 305 310 315 320  
 Ser Tyr Ala Ile His His Asp Lys Phe Thr Asp Gly Val Cys Leu Phe  
 325 330 335  
 Trp Asn Cys Asn Val Asp Arg Tyr Pro Ala Asn Ala Ile Val Cys Arg  
 340 345 350  
 Phe Asp Thr Arg Val Leu Ser Asn Leu Asn Leu Pro Gly Cys Asp Gly  
 355 360 365  
 Gly Ser Leu Tyr Val Asn Lys His Ala Phe His Thr Pro Ala Phe Asp  
 370 375 380  
 Lys Ser Ala Phe Thr Asn Leu Lys Gln Leu Pro Phe Phe Tyr Tyr Ser  
 385 390 395 400  
 Asp Ser Pro Cys Glu Ser His Gly Lys Gln Val Val Ser Asp Ile Asp  
 405 410 415  
 Tyr Val Pro Leu Lys Ser Ala Thr Cys Ile Thr Arg Cys Asn Leu Gly  
 420 425 430

SEQLIST-20480.TXT

Gly Ala Val Cys Arg His His Ala Asn Glu Tyr Arg Gln Tyr Leu Asp  
435 440 445  
Ala Tyr Asn Met Met Ile Ser Ala Gly Phe Ser Leu Trp Ile Tyr Lys  
450 455 460  
Gln Phe Asp Thr Tyr Asn Leu Trp Asn Thr Phe Thr Arg Leu Gln Ser  
465 470 475 480  
Leu Glu Asn Val Ala Tyr Asn Val Val Asn Lys Gly His Phe Asp Gly  
485 490 495  
His Ala Gly Glu Ala Pro Val Ser Ile Ile Asn Asn Ala Val Tyr Thr  
500 505 510  
Lys Val Asp Gly Ile Asp Val Glu Ile Phe Glu Asn Lys Thr Thr Leu  
515 520 525  
Pro Val Asn Val Ala Phe Glu Leu Trp Ala Lys Arg Asn Ile Lys Pro  
530 535 540  
Val Pro Glu Ile Lys Ile Leu Asn Asn Leu Gly Val Asp Ile Ala Ala  
545 550 555 560  
Asn Thr Val Ile Trp Asp Tyr Lys Arg Glu Ala Pro Ala His Val Ser  
565 570 575  
Thr Ile Gly Val Cys Thr Met Thr Asp Ile Ala Lys Lys Pro Thr Glu  
580 585 590  
Ser Ala Cys Ser Ser Leu Thr Val Leu Phe Asp Gly Arg Val Glu Gly  
595 600 605  
Gln Val Asp Leu Phe Arg Asn Ala  
610 615

<210> 11325  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11325  
acacgccggc gaagcacctg

20

<210> 11326  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11326  
accatgacca acattgccag

20

<210> 11327  
<211> 21  
<212> DNA  
<213> Artificial Sequence

```

<220>
<223>    Primer

<400>    11327
acacatgggtt gtgaagtctg c                               21

<210>    11328
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11328
tgtcagacag agtcgtgttc g                               21

<210>    11329
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11329
tgggtgctgtt tgcagacacc                               20

<210>    11330
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11330
tgtctgtgtg acaaacgtgc                               20

<210>    11331
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11331
ttgggcgcacat ggctttgagc                               20

<210>    11332
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11332
gctgtttgca gacaccatgc                               20

<210>    11333

```

```

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11333
cacgttcgtg cgtggattgg 20

<210> 11334
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11334
tgaccaacat tgccaggtag 20

<210> 11335
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11335
tttgggcgca tggctttgag 20

<210> 11336
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11336
caagtgtgtg cctcaggctg 20

<210> 11337
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11337
gtggtgctgt ttgcagacac 20

<210> 11338
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11338

```

	SEQLIST-20480.TXT	
tgtttagcag tccatgagtg c		21
<210> 11339		
<211> 23		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11339		
accactcatg tataaaggct tgc		23
<210> 11340		
<211> 21		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11340		
gcatacccaa aggacatgac c		21
<210> 11341		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11341		
tcacgttcgt gcgtggattg		20
<210> 11342		
<211> 21		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11342		
gtaccgacag tacttggatg c		21
<210> 11343		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11343		
gcatgcattc cacactccag		20
<210> 11344		
<211> 21		
<212> DNA		
<213> Artificial Sequence		
<220>		

```

<223>    Primer
<400>    11344
tgaagtctgc attgcttgct g                21
<210>    11345
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11345
gatcgttacc cagccaatgc                20
<210>    11346
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11346
attcgtcacg ttcgtgcgtg                20
<210>    11347
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11347
ctatcaagtg tgtgcctcag g                21
<210>    11348
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11348
agagtaacca tgaccaacat tgc                23
<210>    11349
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11349
ttcgtcacgt tcgtgcgtgg                20
<210>    11350
<211>    22
<212>    DNA

```

```

<213> Artificial Sequence
<220>
<223> Primer
<400> 11350
ccaaaggcta tcaagtgtgt gc 22
<210> 11351
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11351
tggacacgcc ggcgaagcac 20
<210> 11352
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11352
ctgctacgtg tattacacga tgc 23
<210> 11353
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11353
acgatgcaat ttaggtggtg c 21
<210> 11354
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11354
ccatgaccaa cattgccagg 20
<210> 11355
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 11355
gctatcaagt gtgtgcctca g 21

```



<210> 11356  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11356  
 ttaccaggct gtgatggtgg 20

<210> 11357  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11357  
 cgatgcaatt taggtggtgc tg 22

<210> 11358  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11358  
 aacctccacc aggtgaccag 20

<210> 11359  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11359  
 gtggggcttt acgggtaacc 20

<210> 11360  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11360  
 ttcagcagtg gggctttacg 20

<210> 11361  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400>	11361	
gatggacacg ccggcgaagc		20
<210>	11362	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11362	
ctgtgtgaca aacgtgcaac		20
<210>	11363	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11363	
catgcattcc acactccagc		20
<210>	11364	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11364	
aaaacctcca ccaggtgacc		20
<210>	11365	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11365	
caaaacctcc accaggtgac		20
<210>	11366	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11366	
gaacttacca ggctgtgatg g		21
<210>	11367	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    11367
tcaaacttga acttaccagg ctg                23

<210>    11368
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11368
aggattgtca gacagagtcg tg                22

<210>    11369
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11369
gtcatgcaac tagagatgct gtg                23

<210>    11370
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11370
agttaatgca aaacctccac cag                23

<210>    11371
<211>    25
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11371
gctaagcgta acattaaacc agtgc                25

<210>    11372
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11372
ttgggtgttg atatcgctgc                20

<210>    11373
<211>    22

```

```

<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11373
acttagtagc tgtaccgact gg                22

<210> 11374
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11374
tgagggttaa ttctgcttgc ag                22

<210> 11375
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11375
ggaagttcta cgatgctcag c                21

<210> 11376
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11376
gcgaagaagc tattcgtcac g                21

<210> 11377
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11377
gatgtagagg gctgtcatgc                20

<210> 11378
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11378
gttctacgat gctcagccat g                21

```

SEQLIST-20480.TXT

<210> 11379  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11379  
 aacgttgatc gttacccagc 20

<210> 11380  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11380  
 gagtcgtggt cgtcctttgg 20

<210> 11381  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11381  
 actgagggtt aattctgctt gc 22

<210> 11382  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11382  
 gttccactca aatctgctac gtg 23

<210> 11383  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11383  
 tggttgtgaa gtctgcattg c 21

<210> 11384  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

SEQLIST-20480.TXT

<400>	11384	
ggacctgaaa gaacgtgttg tc		22
<210>	11385	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11385	
ttcgtccttt gggcgcatgg		20
<210>	11386	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11386	
gaagctattc gtcacgttcg tg		22
<210>	11387	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11387	
gttcgtcctt tgggcgcatg		20
<210>	11388	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11388	
agacagagtc gtgttcgtcc		20
<210>	11389	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11389	
aagcatgcat tccacactcc		20
<210>	11390	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	

```

<220>
<223>    Primer

<400>    11390
ttgatcgtta cccagccaat g                                21

<210>    11391
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11391
aacttgaact taccaggctg tg                                22

<210>    11392
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11392
gctttgatgt agagggtgt c                                21

<210>    11393
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11393
ccttgtgagt ctcatggcaa ac                                22

<210>    11394
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11394
gtgtgtgcct caggctgaag                                20

<210>    11395
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11395
tcagacagag tcgtgttcgt c                                21

<210>    11396

```

```

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11396
gtgaagtctg cattgcttgc 20

<210> 11397
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11397
gcacatgtat ctacaatagg tgtctgc 27

<210> 11398
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11398
ggtacatgga aatgcacatg tgg 23

<210> 11399
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11399
gctattcgtc acgttcgtgc 20

<210> 11400
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11400
taaaggcttg ccctggaatg 20

<210> 11401
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11401

```



gttgtgaagt ctgcattgct tg		SEQLIST-20480.TXT	22
<210>	11402		
<211>	23		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	11402		
gaagaagcta ttcgtcacgt tcg			23
<210>	11403		
<211>	22		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	11403		
gctttgttaa gcgcgttgat tg			22
<210>	11404		
<211>	22		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	11404		
caatttaggt ggtgctgttt gc			22
<210>	11405		
<211>	23		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	11405		
catcagatac ttatgcctgc tgg			23
<210>	11406		
<211>	20		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	11406		
tttatcacc gcgaagaagc			20
<210>	11407		
<211>	20		
<212>	DNA		
<213>	Artificial Sequence		
<220>			

```

<223>    Primer
<400>    11407
gtgctttgtt aagcgcgttg                20
<210>    11408
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11408
gttcagcagt ggggctttac                20
<210>    11409
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11409
aatgcaaaac ctccaccagg                20
<210>    11410
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11410
catgcaacta gagatgctgt gg            22
<210>    11411
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11411
gcgtaacatt aaaccagtgc cag          23
<210>    11412
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11412
ccatgcaa at gagtaccgac ag           22
<210>    11413
<211>    20
<212>    DNA

```

<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11413	
	ggctttgatg tagagggctg	20
<210>	11414	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11414	
	tgatggacac gccggcgaag	20
<210>	11415	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11415	
	agagttaatg caaaacctcc acc	23
<210>	11416	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11416	
	cagagtcgtg ttcgtccttt g	21
<210>	11417	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11417	
	cttcatacaga tacttatgcc tgctg	25
<210>	11418	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11418	
	tggtagagtg gaaggacagg	20

<210> 11419  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11419  
ccaagaaacc tactgagagt gc 22

<210> 11420  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11420  
cagatactta tgcctgctgg aatc 24

<210> 11421  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11421  
ggctatcaag tgtgtgcctc 20

<210> 11422  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11422  
ctttgatgta gagggctgtc atg 23

<210> 11423  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11423  
cctaatatgt ttatcacccg cgaag 25

<210> 11424  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400>	11424	
cttgaactta ccaggctgtg atg		23
<210>	11425	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11425	
attccacact ccagctttcg		20
<210>	11426	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11426	
cgaagaagct attcgtcacg ttc		23
<210>	11427	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11427	
atgtttatca cccgcgaaga ag		22
<210>	11428	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11428	
catgtataaa ggcttgccct gg		22
<210>	11429	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11429	
aagagaagcc ccagcacatg		20
<210>	11430	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    11430
ctcatgtata aaggcttgcc ctg                23

<210>    11431
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11431
gattgtcaga cagagtcgtg ttc                23

<210>    11432
<211>    24
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11432
cgtaacatta aaccagtgcc agag                24

<210>    11433
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11433
gcaactagag atgctgtggg tac                23

<210>    11434
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11434
tgatggtaga gtggaaggac ag                22

<210>    11435
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11435
ggtactaacc tacctctcca gc                22

<210>    11436
<211>    23

```

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11436	
	gaaaggattg tcagacagag tcg	23
<210>	11437	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11437	
	gggtactaac ctacctctcc ag	22
<210>	11438	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11438	
	aaaggacact ttgatggaca cg	22
<210>	11439	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11439	
	gtttgatggg agagtgggaag gac	23
<210>	11440	
<211>	24	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11440	
	cttgtttgat ggtagagtgg aagg	24
<210>	11441	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11441	
	aggtgcttcg ccggcgtgtc	20

SEQLIST-20480.TXT

```

<210> 11442
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11442
acaggtgctt cgccggcgtg 20

<210> 11443
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11443
agtctacggt aggtcatgtc c 21

<210> 11444
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11444
acaaagcact catggactgc 20

<210> 11445
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11445
agccaatcca cgcacgaacg 20

<210> 11446
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11446
tggtgtctgc aaacagcacc 20

<210> 11447
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

```



SEQLIST-20480.TXT

<400>	11447	
ccatgtacct ggcaatgttg g		21
<210>	11448	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11448	
tacttcagcc tgaggcacac		20
<210>	11449	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11449	
tcaaagccaa tccacgcacg		20
<210>	11450	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11450	
tgtctgcaaa cagcaccacc		20
<210>	11451	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11451	
ctctgaagggt tacccgtaaa gc		22
<210>	11452	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11452	
tggctgggta acgatcaacg		20
<210>	11453	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    11453
atcaaagcca atccacgcac                                20

<210>    11454
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11454
ggtcattgtcc ttgggtatg c                                21

<210>    11455
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11455
gcttagccca aagctcaaat gc                                22

<210>    11456
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11456
gcatggtgtc tgcaaacagc                                20

<210>    11457
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11457
aatccacgca cgaacgtgac                                20

<210>    11458
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11458
tccatgtacc tggcaatgtt g                                21

<210>    11459

```

SEQLIST-20480.TXT

```

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11459
cttcagcctg aggcacacac 20

<210> 11460
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11460
ccaatccacg cacgaacgtg 20

<210> 11461
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11461
gtgtctgcaa acagcaccac 20

<210> 11462
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11462
tcggtactca tttgcatggt g 21

<210> 11463
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11463
actaccacca tcacagcctg 20

<210> 11464
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11464

```

aaactgggtca cctgggtggag	20
<210> 11465	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11465	
ccaaaggacg aacacgactc	20
<210> 11466	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11466	
aagccatgcg cccaaaggac	20
<210> 11467	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11467	
tcagcaagca atgcagactt c	21
<210> 11468	
<211> 23	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11468	
acactacttg ttgccatga gac	23
<210> 11469	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 11469	
caaagccatg cgcccaaagg	20
<210> 11470	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	

```

<223>    Primer
<400>    11470
tgtcagtcac tgtgcagaca c                21
<210>    11471
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11471
acaaactacc accatcacag c                21
<210>    11472
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11472
aggacgaaca cgactctgtc                20
<210>    11473
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11473
cactacatgg ctgagcatcg                20
<210>    11474
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11474
ctaccacccat cacagcctgg                20
<210>    11475
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11475
caaaggacga acacgactct g                21
<210>    11476
<211>    20
<212>    DNA

```

```

<213> Artificial Sequence
<220>
<223> Primer

<400> 11476
tctacttcag cctgaggcac 20

<210> 11477
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11477
caacataacc agtcggtaca gc 22

<210> 11478
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11478
gctttgtcac tacatggctg ag 22

<210> 11479
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11479
gcatccaagt actgtcggta ctc 23

<210> 11480
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11480
aaccacaga atgattccag c 21

<210> 11481
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11481
gtttaaactg gtcacctggt gg 22

```

SEQLIST-20480.TXT

```

<210> 11482
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11482
tgatggaaac aggtgcttcg 20

<210> 11483
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11483
gcgcttaaca aagcactcat gg 22

<210> 11484
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11484
agccatgcg ccaaaggacg 20

<210> 11485
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11485
caccatcaca gcctggtgtaag 20

<210> 11486
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11486
gaatagcttc ttcgcgggtg 20

<210> 11487
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

```

<400>	11487	
gcaatgtcag tcattgtgca gac		23
<210>	11488	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11488	
gcaccaccta aattgcatcg tg		22
<210>	11489	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11489	
attgcattgg ctgggtaacg		20
<210>	11490	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11490	
actcatttgc atggtgtctg c		21
<210>	11491	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11491	
ggttaccctg aaagccccac		20
<210>	11492	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11492	
aagccaatcc acgcacgaac		20
<210>	11493	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	



```

<220>
<223>    Primer

<400>    11493
cgacactact tgtttgccat gag                23

<210>    11494
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11494
cagcatctct agttgcatga cag                23

<210>    11495
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11495
ctctacatca aagccaatcc acg                23

<210>    11496
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11496
aaagctggag tgtggaatgc                    20

<210>    11497
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11497
gtcagtcatt gtgcagacac c                  21

<210>    11498
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11498
ctagttgcat gacagccctc                    20

<210>    11499
<211>    20

```

```

<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11499
tgcgcccaaa ggacgaacac
20

<210> 11500
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11500
ctacacacaa ttgcattggc tg
22

<210> 11501
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11501
atccacgcac gaacgtgacg
20

<210> 11502
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11502
cgtttgtcac acagacaaca cg
22

<210> 11503
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11503
acacctgtag aaaatcctag ctgg
24

<210> 11504
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11504
cggtactcat ttgcatggtg tc
22

```

SEQLIST-20480.TXT

<210>	11505	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11505	
	gcccaaagga cgaacacgac	20
<210>	11506	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11506	
	agaccaatca acgcgcttaa c	21
<210>	11507	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11507	
	agggtctacct gtccttcac	20
<210>	11508	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11508	
	aactggtcac ctggtggagg	20
<210>	11509	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11509	
	tgatgtaagc tcaaagccat gc	22
<210>	11510	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	

SEQLIST-20480.TXT

<400>	11510	
	gcatcgtgta atacacgtag cag	23
<210>	11511	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11511	
	tgagtatctt aatctctggc actgg	25
<210>	11512	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11512	
	ttacgcttag cccaaagctc	20
<210>	11513	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11513	
	gcatctctag ttgcatgaca gc	22
<210>	11514	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11514	
	gtcactacat ggctgagcat c	21
<210>	11515	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	11515	
	tccattctac ttcagcctga gg	22
<210>	11516	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	

SEQLIST-20480.TXT

```

<220>
<223>    Primer

<400>    11516
tttgtcacta catggctgag c                               21

<210>    11517
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11517
gcgcttaaca aagcactcat g                               21

<210>    11518
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11518
caattgcatt ggctgggtaa c                               21

<210>    11519
<211>    21
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11519
ggtctacctg tccttcact c                               21

<210>    11520
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11520
gtaaagcccc actgctgaac                               20

<210>    11521
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer

<400>    11521
cactacattc cagggcaagc                               20

<210>    11522

```

```

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11522
gcgccc aaag gacgaacacg                20

<210> 11523
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11523
cacacaattg cattggctgg                20

<210> 11524
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11524
aggtagg tta gtaccacag c                21

<210> 11525
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11525
gttgc atgac agccctctac                20

<210> 11526
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11526
gtcaacataa ccagtcggt aag                23

<210> 11527
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 11527

```

	SEQLIST-20480.TXT	
ccacagaatg attccagcag g		21
<210> 11528		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11528		
ttacccgtaa agccccactg		20
<210> 11529		
<211> 23		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11529		
ggaaacttat cagcaagcaa tgc		23
<210> 11530		
<211> 25		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11530		
catagagatg agtctacggg aggtc		25
<210> 11531		
<211> 24		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11531		
ctcagtaggt ttcttgcaa tgtc		24
<210> 11532		
<211> 24		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11532		
acttcattc tacttcagcc tgag		24
<210> 11533		
<211> 23		
<212> DNA		
<213> Artificial Sequence		
<220>		

```

<223>    Primer
<400>    11533
cctctacatc aaagccaatc cac                23
<210>    11534
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11534
ccctctacat caaagccaat cc                22
<210>    11535
<211>    22
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11535
ccgacactac ttgtttgcca tg                22
<210>    11536
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11536
cccgtaaagc cccactgctg                  20
<210>    11537
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11537
tacatgtgct ggggcttctc                  20
<210>    11538
<211>    20
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Primer
<400>    11538
catgcgcca aaggacgaac                    20
<210>    11539
<211>    20
<212>    DNA

```



<213> Artificial Sequence

<220>

<223> Primer

<400> 11539  
gatacatgtg ctggggcttc 20

<210> 11540  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Primer

<400> 11540  
gcttcgccgg cgtgtccatc 20

<210> 11541  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Primer

<400> 11541  
gcaagcagaa ttaaccctca gttc 24

<210> 11542  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Primer

<400> 11542  
ggtaggttag tacccacagc atc 23

<210> 11543  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Primer

<400> 11543  
gtaagtgaag aacaagcact ctgag 25

<210> 11544  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Primer

<400> 11544  
ttttatcgaa agctggagtg tgg 23

SEQLIST-20480.TXT

<210> 11545  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11545  
 taccgcgtaaa gccccactgc 20

<210> 11546  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11546  
 gaacttccat tctacttcag cctg 24

<210> 1154  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 1154  
 gcacttttat cgaaagctgg agtg 24

<210> 11548  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 11548  
 gcactacatt ccagggaag 20

<210> 1154  
 <211> 25  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 1154  
 tctaaaaagg tctacctgtc cttcc 25

<210> 11550  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

SEQLIST-20480.TXT

<400> 11550  
tgtagaaaat cctagctgga gagg 24

<210> 11551  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 11551  
cctgtagaaa atcctagctg gagag 25

<210> 11552  
<211> 481  
<212> PRT  
<213> SARS coronavirus

<400> 11552  
Met Thr Tyr Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met Asn Tyr  
1 5 10 15  
Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu Ala Ile  
20 25 30  
Arg His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys His Ala  
35 40 45  
Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly Phe Ser  
50 55 60  
Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp Thr Glu  
65 70 75 80  
Asn Asn Thr Glu Phe Thr Arg Val Asn Ala Lys Pro Pro Pro Gly Asp  
85 90 95  
Gln Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro Trp Asn  
100 105 110  
Val Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu Lys Gly  
115 120 125  
Leu Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe Glu Leu  
130 135 140  
Thr Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr Cys Cys  
145 150 155 160  
Leu Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp Thr Tyr  
165 170 175  
Ala Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn Pro Phe  
180 185 190  
Met Ile Asp Val Gln Gln Trp Gly Phe Thr Gly Asn Leu Gln Ser Asn  
195 200 205  
His Asp Gln His Cys Gln Val His Gly Asn Ala His Val Ala Ser Cys  
210 215 220  
Asp Ala Ile Met Thr Arg Cys Leu Ala Val His Glu Cys Phe Val Lys

[illegible]

<400> 11554  
Ser Tyr Ala Ile His  
1 5

<210> 11555  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 11555  
Tyr Ala Ile His His  
1 5

<210> 11556  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 11556  
Ile His His Asp Lys  
1 5

<210> 11557  
<211> 4  
<212> PRT  
<213> SARS coronavirus

<400> 11557  
Ser Tyr Ala Ile  
1

<210> 11558  
<211> 4  
<212> PRT  
<213> SARS coronavirus

<400> 11558  
Tyr Ala Ile His  
1

<210> 11559  
<211> 4  
<212> PRT  
<213> SARS coronavirus

<400> 11559  
Ala Ile His His  
1

<210> 11560  
<211> 4  
<212> PRT  
<213> SARS coronavirus

<400> 11560  
Ile His His Asp  
1

<210> 11561  
<211> 34  
<212> PRT  
<213> SARS coronavirus

SEQLIST-20480.TXT

<400> 11561  
Met Ser Asp Asn Gly Pro Gln Ser Asn Gln Arg Ser Ala Pro Arg Ile  
1 5 10 15  
Thr Phe Gly Gly Pro Thr Asp Ser Thr Asp Asn Asn Gln Asn Gly Gly  
20 25 30

Arg Asn

<210> 11562  
<211> 31  
<212> PRT  
<213> SARS coronavirus

<400> 11562  
Met Asp Pro Asn Gln Thr Asn Val Val Pro Pro Ala Leu His Leu Val  
1 5 10 15  
Asp Pro Gln Ile Gln Leu Thr Ile Thr Arg Met Glu Asp Cys Asn  
20 25 30

<210> 11563  
<211> 1680  
<212> DNA  
<213> SARS coronavirus

<400> 11563  
tgaggactcg agctcaagct ttaattgact tctatttgtg ctttttagcc tttctgctat 60  
tccttgtttt aataatgctt attatatattt ggttttcact cgaaatccag gatctagaag 120  
aaccttgtac caaagtctaa acgaacatga aacttctcat tgttttgact tgtattttctc 180  
tatgcagttg catatgcact gtagtacagc gctgtgcatc taataaacct catgtgcttg 240  
aagatccttg taaggtaaa cactaggggt aatacttata gcactgcttg gctttgtgct 300  
ctaggaaagg ttttaccttt tcatagatgg cacactatgg ttcaaactg cacaccta 360  
gttactatca actgtcaaga tccagctggg ggtgcgctta tagctagggt ttggtacctt 420  
catgaagggt accaaaactg gcattttaga gacgtacttg ttgttttaaa taaacgaaca 480  
aattaaaaatg tctgataatg gaccccaatc aaaccaacgt agtgccccc gcattacatt 540  
tggtggaccc acagattcaa ctgacaataa ccagaatgga ggacgcaatg gggcaaggcc 600  
aaaacagcgc cgaccccaag gtttaccctt taatattgct tcttgggtca cagctctcac 660  
tcagcatggc aaggaggaac ttagattccc tcgaggccag ggcgttccaa tcaacaccaa 720  
tagtggtcca gatgaccaa ttggctacta ccgaagagct acccgacgag ttcgtggtgg 780  
tgacggcaaa atgaaagagc tcagccccag atggtacttc tattacctag gaactggccc 840  
agaagcttca cttccctacg gcgctaacaa agaaggcatc gtatgggttg caactgaggg 900  
agccttgaat acacccaaag accacattgg caccgcaat cctaataaca atgctgccac 960  
cgtgtacaaa cttcctcaag gaacaacatt gccaaaaggc ttctacgcag aggggaagcag 1020  
aggcggcagt caagcctctt ctgcctcctc atcacgtagt cgcggtatt caagaaattc 1080  
aactcctggc agcagtaggg gaaattctcc tgctcgaatg gctagcggag gtggtgaaac 1140  
tgccctcgcg ctattgctgc tagacagatt gaaccagctt gagagcaaag tttctggtaa 1200  
aggccaacaa caacaaggcc aaactgtcac taagaaatct gctgctgagg catctaaaaa 1260  
gcctcgccaa aaacgtactg ccacaaaaca gtacaacgtc actcaagcat ttgggagacg 1320  
tggtccagaa caaacccaag gaaatttcgg ggaccaagac ctaatcagac aaggaactga 1380  
ttacaacat tgcccgcaa ttgcacaatt tgctccaagt gcctctgcat tctttggaat 1440  
gtcacgcatt ggcatggaag tcacaccttc gggaaacatg ctgacttatc atggagccat 1500  
taaattggat gacaaagatc cacaattcaa agacaacgtc atactgctga acaagcacat 1560  
tgacgcatac aaaacattcc caccaacaga gcctaaaaag gacaaaaaga aaaagactga 1620  
tgaagctcag cctttgcccg agagacaaaa gaagcagccc actgtgactc ttcttcctgc 1680

<210> 11564  
<211> 6  
<212> PRT  
<213> Artificial Sequence

```

<220>
<223>   Inferred translation product

<400>   11564
Gly Leu Glu Leu Lys Leu
1          5

<210>   11565
<211>   7
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   11565
Leu Thr Ser Ile Cys Ala Phe
1          5

<210>   11566
<211>   7
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   11566
Pro Phe Cys Tyr Ser Leu Phe
1          5

<210>   11567
<211>   13
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   11567
Cys Leu Leu Tyr Phe Gly Phe His Ser Lys Ser Arg Ile
1          5          10

<210>   11568
<211>   10
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

<400>   11568
Lys Asn Leu Val Pro Lys Ser Lys Arg Thr
1          5          10

<210>   11569
<211>   5
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Inferred translation product

```

SEQLIST-20480.TXT

<400> 11569  
Asn Phe Ser Leu Phe  
1 5

<210> 11570  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11570  
Leu Val Phe Leu Tyr Ala Val Ala Tyr Ala Leu  
1 5 10

<210> 11571  
<211> 93  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11571  
Tyr Ser Ala Val His Leu Ile Asn Leu Met Cys Leu Lys Ile Leu Val  
1 5 10 15

Arg Tyr Asn Thr Arg Gly Asn Thr Tyr Ser Thr Ala Trp Leu Cys Ala  
20 25 30

Leu Gly Lys Val Leu Pro Phe His Arg Trp His Thr Met Val Gln Thr  
35 40 45

Cys Thr Pro Asn Val Thr Ile Asn Cys Gln Asp Pro Ala Gly Gly Ala  
50 55 60

Leu Ile Ala Arg Cys Trp Tyr Leu His Glu Gly His Gln Thr Ala Ala  
65 70 75 80

Phe Arg Asp Val Leu Val Val Leu Asn Lys Arg Thr Asn  
85 90

<210> 11572  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11572  
Trp Thr Pro Ile Lys Pro Thr  
1 5

<210> 11573  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product



SEQLIST-20480.TXT

<400> 11573  
Cys Pro Pro His Tyr Ile Trp Trp Thr His Arg Phe Asn  
1 5 10

<210> 11574  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11574  
Pro Glu Trp Arg Thr Gln Trp Gly Lys Ala Lys Thr Ala Pro Thr Pro  
1 5 10 15

Arg Phe Thr Gln  
20

<210> 11575  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11575  
Tyr Cys Val Leu Val His Ser Ser His Ser Ala Trp Gln Gly Gly Thr  
1 5 10 15

<210> 11576  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11576  
Ile Pro Ser Arg Pro Gly Arg Ser Asn Gln His Gln  
1 5 10

<210> 11577  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11577  
Pro Asn Trp Leu Leu Pro Lys Ser Tyr Pro Thr Ser Ser Trp Trp  
1 5 10 15

<210> 11578  
<211> 27  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

SEQLIST-20480.TXT

<400> 11578  
Arg Gln Asn Glu Arg Ala Gln Pro Gln Met Val Leu Leu Leu Pro Arg  
1 5 10 15

Asn Trp Pro Arg Ser Phe Thr Ser Leu Arg Arg  
20 25

<210> 11579  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11579  
Gln Arg Arg His Arg Met Gly Cys Asn  
1 5

<210> 11580  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11580  
Gly Ser Leu Glu Tyr Thr Gln Arg Pro His Trp His Pro Gln Ser  
1 5 10 15

<210> 11581  
<211> 36  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11581  
Gln Cys Cys His Arg Ala Thr Thr Ser Ser Arg Asn Asn Ile Ala Lys  
1 5 10 15

Arg Leu Leu Arg Arg Gly Lys Gln Arg Arg Gln Ser Ser Leu Phe Ser  
20 25 30

Leu Leu Ile Thr  
35

<210> 11582  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11582  
Phe Lys Lys Phe Asn Ser Trp Gln Gln  
1 5

<210> 11583

<211> 8  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11583  
 Gly Lys Phe Ser Cys Ser Asn Gly  
 1 5

<210> 11584  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11584  
 Asn Cys Pro Arg Ala Ile Ala Ala Arg Gln Ile Glu Pro Ala  
 1 5 10

<210> 11585  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11585  
 Glu Gln Ser Phe Trp  
 1 5

<210> 11586  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11586  
 Arg Pro Thr Thr Thr Arg Pro Asn Cys His  
 1 5 10

<210> 11587  
 <211> 4  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11587  
 Glu Ile Cys Cys  
 1

<210> 11588  
 <211> 40  
 <212> PRT  
 <213> Artificial Sequence

SEQLIST-20480.TXT

<220>  
 <223> Inferred translation product  
 <400> 11588  
 Lys Ala Ser Pro Lys Thr Tyr Cys His Lys Thr Val Gln Arg His Ser  
 1 5 10 15  
 Ser Ile Trp Glu Thr Trp Ser Arg Thr Asn Pro Arg Lys Phe Arg Gly  
 20 25 30  
 Pro Arg Pro Asn Gln Thr Arg Asn  
 35 40

<210> 11589  
 <211> 40  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product  
 <400> 11589  
 Leu Gln Thr Leu Ala Ala Asn Cys Thr Ile Cys Ser Lys Cys Leu Cys  
 1 5 10 15  
 Ile Leu Trp Asn Val Thr His Trp His Gly Ser His Thr Phe Gly Asn  
 20 25 30  
 Met Ala Asp Leu Ser Trp Ser His  
 35 40

<210> 11590  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product  
 <400> 11590  
 Gln Arg Ser Thr Ile Gln Arg Gln Arg His Thr Ala Glu Gln Ala His  
 1 5 10 15

<210> 11591  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product  
 <400> 11591  
 Arg Ile Gln Asn Ile Pro Thr Asn Arg Ala  
 1 5 10

<210> 11592  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 11592  
Lys Gly Gln Lys Glu Lys Asp  
1 5

<210> 11593  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11593  
Ser Ser Ala Phe Ala Ala Glu Thr Lys Glu Ala Ala His Cys Asp Ser  
1 5 10 15

Ser Ser Cys

<210> 11594  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11594  
Glu Asp Ser Ser Ser Ser Phe Asn  
1 5

<210> 11595  
<211> 64  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11595  
Leu Leu Phe Val Leu Phe Ser Leu Ser Ala Ile Pro Cys Phe Asn Asn  
1 5 10 15

Ala Tyr Tyr Ile Leu Val Phe Thr Arg Asn Pro Gly Ser Arg Arg Thr  
20 25 30

Leu Tyr Gln Ser Leu Asn Glu His Glu Thr Ser His Cys Phe Asp Leu  
35 40 45

Tyr Phe Ser Met Gln Leu His Met His Cys Ser Thr Ala Leu Cys Ile  
50 55 60

<210> 11596  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

SEQLIST-20480.TXT

<400> 11596  
Thr Ser Cys Ala  
1

<210> 11597  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11597  
Gly Thr Thr Leu Gly Val Ile Leu Ile Ala Leu Leu Gly Phe Val Leu  
1 5 10 15

<210> 11598  
<211> 32  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11598  
Glu Arg Phe Tyr Leu Phe Ile Asp Gly Thr Leu Trp Phe Lys His Ala  
1 5 10 15  
His Leu Met Leu Leu Ser Thr Val Lys Ile Gln Leu Val Val Arg Leu  
20 25 30

<210> 11599  
<211> 21  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11599  
Leu Gly Val Gly Thr Phe Met Lys Val Thr Lys Leu Leu His Leu Glu  
1 5 10 15  
Thr Tyr Leu Leu Phe  
20

<210> 11600  
<211> 403  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11600  
Ile Asn Glu Gln Ile Lys Met Ser Asp Asn Gly Pro Gln Ser Asn Gln  
1 5 10 15  
Arg Ser Ala Pro Arg Ile Thr Phe Gly Gly Pro Thr Asp Ser Thr Asp  
20 25 30

SEQLIST-20480.TXT

Asn Asn Gln Asn Gly Gly Arg Asn Gly Ala Arg Pro Lys Gln Arg Arg  
 35 40 45  
 Pro Gln Gly Leu Pro Asn Asn Ile Ala Ser Trp Phe Thr Ala Leu Thr  
 50 55 60  
 Gln His Gly Lys Glu Glu Leu Arg Phe Pro Arg Gly Gln Gly Val Pro  
 65 70 75 80  
 Ile Asn Thr Asn Ser Gly Pro Asp Asp Gln Ile Gly Tyr Tyr Arg Arg  
 85 90 95  
 Ala Thr Arg Arg Val Arg Gly Gly Asp Gly Lys Met Lys Glu Leu Ser  
 100 105 110  
 Pro Arg Trp Tyr Phe Tyr Tyr Leu Gly Thr Gly Pro Glu Ala Ser Leu  
 115 120 125  
 Pro Tyr Gly Ala Asn Lys Glu Gly Ile Val Trp Val Ala Thr Glu Gly  
 130 135 140  
 Ala Leu Asn Thr Pro Lys Asp His Ile Gly Thr Arg Asn Pro Asn Asn  
 145 150 155 160  
 Asn Ala Ala Thr Val Leu Gln Leu Pro Gln Gly Thr Thr Leu Pro Lys  
 165 170 175  
 Gly Phe Tyr Ala Glu Gly Ser Arg Gly Gly Ser Gln Ala Ser Ser Arg  
 180 185 190  
 Ser Ser Ser Arg Ser Arg Gly Asn Ser Arg Asn Ser Thr Pro Gly Ser  
 195 200 205  
 Ser Arg Gly Asn Ser Pro Ala Arg Met Ala Ser Gly Gly Gly Glu Thr  
 210 215 220  
 Ala Leu Ala Leu Leu Leu Leu Asp Arg Leu Asn Gln Leu Glu Ser Lys  
 225 230 235 240  
 Val Ser Gly Lys Gly Gln Gln Gln Gln Gly Gln Thr Val Thr Lys Lys  
 245 250 255  
 Ser Ala Ala Glu Ala Ser Lys Lys Pro Arg Gln Lys Arg Thr Ala Thr  
 260 265 270  
 Lys Gln Tyr Asn Val Thr Gln Ala Phe Gly Arg Arg Gly Pro Glu Gln  
 275 280 285  
 Thr Gln Gly Asn Phe Gly Asp Gln Asp Leu Ile Arg Gln Gly Thr Asp  
 290 295 300  
 Tyr Lys His Trp Pro Gln Ile Ala Gln Phe Ala Pro Ser Ala Ser Ala  
 305 310 315 320  
 Phe Phe Gly Met Ser Arg Ile Gly Met Glu Val Thr Pro Ser Gly Thr  
 325 330 335  
 Trp Leu Thr Tyr His Gly Ala Ile Lys Leu Asp Asp Lys Asp Pro Gln  
 340 345 350  
 Phe Lys Asp Asn Val Ile Leu Leu Asn Lys His Ile Asp Ala Tyr Lys  
 355 360 365

SEQLIST-20480.TXT

Thr Phe Pro Pro Thr Glu Pro Lys Lys Asp Lys Lys Lys Lys Thr Asp  
370 375 380

Glu Ala Gln Pro Leu Pro Gln Arg Gln Lys Lys Gln Pro Thr Val Thr  
385 390 395 400

Leu Leu Pro

<210> 11601  
<211> 45  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11601  
Arg Thr Arg Ala Gln Ala Leu Ile Asp Phe Tyr Leu Cys Phe Leu Ala  
1 5 10 15

Phe Leu Leu Phe Leu Val Leu Ile Met Leu Ile Ile Phe Trp Phe Ser  
20 25 30

Leu Glu Ile Gln Asp Leu Glu Glu Pro Cys Thr Lys Val  
35 40 45

<210> 11602  
<211> 41  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11602  
Thr Asn Met Lys Leu Leu Ile Val Leu Thr Cys Ile Ser Leu Cys Ser  
1 5 10 15

Cys Ile Cys Thr Val Val Gln Arg Cys Ala Ser Asn Lys Pro His Val  
20 25 30

Leu Glu Asp Pro Cys Lys Val Gln His  
35 40

<210> 11603  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11603  
His Cys Leu Ala Leu Cys Ser Arg Lys Gly Phe Thr Phe Ser  
1 5 10

<210> 11604  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>



<223> Inferred translation product

<400> 11604  
Met Ala His Tyr Gly Ser Asn Met His Thr  
1 5 10

<210> 11605

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 11605  
Cys Tyr Tyr Gln Leu Ser Arg Ser Ser Trp Trp Cys Ala Tyr Ser  
1 5 10 15

<210> 11606

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 11606  
Val Leu Val Pro Ser  
1 5

<210> 11607

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 11607  
Arg Ser Pro Asn Cys Cys Ile  
1 5

<210> 11608

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 11608  
Arg Arg Thr Cys Cys Phe Lys  
1 5

<210> 11609

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<223> Inferred translation product

<400> 11609

SEQLIST-20480.TXT

Thr Asn Lys Leu Lys Cys Leu Ile Met Asp Pro Asn Gln Thr Asn Val  
 1 5 10 15  
 Val Pro Pro Ala Leu His Leu Val Asp Pro Gln Ile Gln Leu Thr Ile  
 20 25 30  
 Thr Arg Met Glu Asp Ala Met Gly Gln Gly Gln Asn Ser Ala Asp Pro  
 35 40 45  
 Lys Val Tyr Pro Ile Ile Leu Arg Leu Gly Ser Gln Leu Ser Leu Ser  
 50 55 60  
 Met Ala Arg Arg Asn Leu Asp Ser Leu Glu Ala Arg Ala Phe Gln Ser  
 65 70 75 80  
 Thr Pro Ile Val Val Gln Met Thr Lys Leu Ala Thr Thr Glu Glu Leu  
 85 90 95  
 Pro Asp Glu Phe Val Val Val Thr Ala Lys  
 100 105

<210> 11610  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11610  
 Lys Ser Ser Ala Pro Asp Gly Thr Ser Ile Thr  
 1 5 10

<210> 11611  
 <211> 25  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11611  
 Glu Leu Ala Gln Lys Leu His Phe Pro Thr Ala Leu Thr Lys Lys Ala  
 1 5 10 15  
 Ser Tyr Gly Leu Gln Leu Arg Glu Pro  
 20 25

<210> 11612  
 <211> 84  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11612  
 Ile His Pro Lys Thr Thr Leu Ala Pro Ala Ile Leu Ile Thr Met Leu  
 1 5 10 15  
 Pro Pro Cys Tyr Asn Phe Leu Lys Glu Gln His Cys Gln Lys Ala Ser  
 20 25 30

SEQLIST-20480.TXT

Thr Gln Arg Glu Ala Glu Ala Ala Val Lys Pro Leu Leu Ala Pro His  
 35 40 45  
 His Val Val Ala Val Ile Gln Glu Ile Gln Leu Leu Ala Ala Val Gly  
 50 55 60  
 Glu Ile Leu Leu Leu Glu Trp Leu Ala Glu Val Val Lys Leu Pro Ser  
 65 70 75 80  
 Arg Tyr Cys Cys

<210> 11613  
 <211> 63  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11613  
 Thr Ser Leu Arg Ala Lys Phe Leu Val Lys Ala Asn Asn Asn Lys Ala  
 1 5 10 15  
 Lys Leu Ser Leu Arg Asn Leu Leu Leu Arg His Leu Lys Ser Leu Ala  
 20 25 30  
 Lys Asn Val Leu Pro Gln Asn Ser Thr Thr Ser Leu Lys His Leu Gly  
 35 40 45  
 Asp Val Val Gln Asn Lys Pro Lys Glu Ile Ser Gly Thr Lys Thr  
 50 55 60

<210> 11614  
 <211> 39  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11614  
 Ser Asp Lys Glu Leu Ile Thr Asn Ile Gly Arg Lys Leu His Asn Leu  
 1 5 10 15  
 Leu Gln Val Pro Leu His Ser Leu Glu Cys His Ala Leu Ala Trp Lys  
 20 25 30  
 Ser His Leu Arg Glu His Gly  
 35

<210> 11615  
 <211> 21  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Inferred translation product

<400> 11615  
 Leu Ile Met Glu Pro Leu Asn Trp Met Thr Lys Ile His Asn Ser Lys  
 1 5 10 15

SEQLIST-20480.TXT

Thr Thr Ser Tyr Cys  
20

<210> 11616  
<211> 38  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11616  
Thr Ser Thr Leu Thr His Thr Lys His Ser His Gln Gln Ser Leu Lys  
1 5 10 15  
Arg Thr Lys Arg Lys Arg Leu Met Lys Leu Ser Leu Cys Arg Arg Asp  
20 25 30  
Lys Arg Ser Ser Pro Leu  
35

<210> 11617  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Inferred translation product

<400> 11617  
Leu Phe Phe Leu  
1

<210> 11618  
<211> 397  
<212> PRT  
<213> SARS coronavirus

<400> 11618  
Met Ser Asp Asn Gly Pro Gln Ser Asn Gln Arg Ser Ala Pro Arg Ile  
1 5 10 15  
Thr Phe Gly Gly Pro Thr Asp Ser Thr Asp Asn Asn Gln Asn Gly Gly  
20 25 30  
Arg Asn Gly Ala Arg Pro Lys Gln Arg Arg Pro Gln Gly Leu Pro Asn  
35 40 45  
Asn Ile Ala Ser Trp Phe Thr Ala Leu Thr Gln His Gly Lys Glu Glu  
50 55 60  
Leu Arg Phe Pro Arg Gly Gln Gly Val Pro Ile Asn Thr Asn Ser Gly  
65 70 75 80  
Pro Asp Asp Gln Ile Gly Tyr Tyr Arg Arg Ala Thr Arg Arg Val Arg  
85 90 95  
Gly Gly Asp Gly Lys Met Lys Glu Leu Ser Pro Arg Trp Tyr Phe Tyr  
100 105 110  
Tyr Leu Gly Thr Gly Pro Glu Ala Ser Leu Pro Tyr Gly Ala Asn Lys  
115 120 125

SEQLIST-20480.TXT

Glu Gly Ile Val Trp Val Ala Thr Glu Gly Ala Leu Asn Thr Pro Lys  
130 135 140

Asp His Ile Gly Thr Arg Asn Pro Asn Asn Asn Ala Ala Thr Val Leu  
145 150 155 160

Gln Leu Pro Gln Gly Thr Thr Leu Pro Lys Gly Phe Tyr Ala Glu Gly  
165 170 175

Ser Arg Gly Gly Ser Gln Ala Ser Ser Arg Ser Ser Ser Arg Ser Arg  
180 185 190

Gly Asn Ser Arg Asn Ser Thr Pro Gly Ser Ser Arg Gly Asn Ser Pro  
195 200 205

Ala Arg Met Ala Ser Gly Gly Gly Glu Thr Ala Leu Ala Leu Leu Leu  
210 215 220

Leu Asp Arg Leu Asn Gln Leu Glu Ser Lys Val Ser Gly Lys Gly Gln  
225 230 235 240

Gln Gln Gln Gly Gln Thr Val Thr Lys Lys Ser Ala Ala Glu Ala Ser  
245 250 255

Lys Lys Pro Arg Gln Lys Arg Thr Ala Thr Lys Gln Tyr Asn Val Thr  
260 265 270

Gln Ala Phe Gly Arg Arg Gly Pro Glu Gln Thr Gln Gly Asn Phe Gly  
275 280 285

Asp Gln Asp Leu Ile Arg Gln Gly Thr Asp Tyr Lys His Trp Pro Gln  
290 295 300

Ile Ala Gln Phe Ala Pro Ser Ala Ser Ala Phe Phe Gly Met Ser Arg  
305 310 315 320

Ile Gly Met Glu Val Thr Pro Ser Gly Thr Trp Leu Thr Tyr His Gly  
325 330 335

Ala Ile Lys Leu Asp Asp Lys Asp Pro Gln Phe Lys Asp Asn Val Ile  
340 345 350

Leu Leu Asn Lys His Ile Asp Ala Tyr Lys Thr Phe Pro Pro Thr Glu  
355 360 365

Pro Lys Lys Asp Lys Lys Lys Lys Thr Asp Glu Ala Gln Pro Leu Pro  
370 375 380

Gln Arg Gln Lys Lys Gln Pro Thr Val Thr Leu Leu Pro  
385 390 395

<210> 11619  
<211> 98  
<212> PRT  
<213> SARS coronavirus

<400> 11619  
Met Asp Pro Asn Gln Thr Asn Val Val Pro Pro Ala Leu His Leu Val  
1 5 10 15

Asp Pro Gln Ile Gln Leu Thr Ile Thr Arg Met Glu Asp Ala Met Gly  
20 25 30

SEQLIST-20480.TXT

Gln Gly Gln Asn Ser Ala Asp Pro Lys Val Tyr Pro Ile Ile Leu Arg  
 35 40 45  
 Leu Gly Ser Gln Leu Ser Leu Ser Met Ala Arg Arg Asn Leu Asp Ser  
 50 55 60  
 Leu Glu Ala Arg Ala Phe Gln Ser Thr Pro Ile Val Val Gln Met Thr  
 65 70 75 80  
 Lys Leu Ala Thr Thr Glu Glu Leu Pro Asp Glu Phe Val Val Val Thr  
 85 90 95

Ala Lys

<210> 11620  
 <211> 1125  
 <212> PRT  
 <213> SARS coronavirus

<400> 11620  
 Lys Asp Met Thr Tyr Arg Arg Leu Ile Ser Met Met Gly Phe Lys Met  
 1 5 10 15  
 Asn Tyr Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg Glu Glu  
 20 25 30  
 Ala Ile Arg His Val Arg Ala Trp Ile Gly Phe Asp Val Glu Gly Cys  
 35 40 45  
 His Ala Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln Leu Gly  
 50 55 60  
 Phe Ser Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr Val Asp  
 65 70 75 80  
 Thr Glu Asn Asn Thr Glu Phe Thr Arg Val Asn Ala Lys Pro Pro Pro  
 85 90 95  
 Gly Asp Gln Phe Lys His Leu Ile Pro Leu Met Tyr Lys Gly Leu Pro  
 100 105 110  
 Trp Asn Val Val Arg Ile Lys Ile Val Gln Met Leu Ser Asp Thr Leu  
 115 120 125  
 Lys Gly Leu Ser Asp Arg Val Val Phe Val Leu Trp Ala His Gly Phe  
 130 135 140  
 Glu Leu Thr Ser Met Lys Tyr Phe Val Lys Ile Gly Pro Glu Arg Thr  
 145 150 155 160  
 Cys Cys Leu Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr Ser Ser Asp  
 165 170 175  
 Thr Tyr Ala Cys Trp Asn His Ser Val Gly Phe Asp Tyr Val Tyr Asn  
 180 185 190  
 Pro Phe Met Ile Asp Val Gln Gln Trp Gly Phe Thr Gly Asn Leu Gln  
 195 200 205  
 Ser Asn His Asp Gln His Cys Gln Val His Gly Asn Ala His Val Ala  
 210 215 220

SEQLIST-20480.TXT

Ser Cys Asp Ala Ile Met Thr Arg Cys Leu Ala Val His Glu Cys Phe  
225 230 235 240  
Val Lys Arg Val Asp Trp Ser Val Glu Tyr Pro Ile Ile Gly Asp Glu  
245 250 255  
Leu Arg Val Asn Ser Ala Cys Arg Lys Val Gln His Met Val Val Lys  
260 265 270  
Ser Ala Leu Leu Ala Asp Lys Phe Pro Val Leu His Asp Ile Gly Asn  
275 280 285  
Pro Lys Ala Ile Lys Cys Val Pro Gln Ala Glu Val Glu Trp Lys Phe  
290 295 300  
Tyr Asp Ala Gln Pro Cys Ser Asp Lys Ala Tyr Lys Ile Glu Glu Leu  
305 310 315 320  
Phe Tyr Ser Tyr Ala Ile His His Asp Lys Phe Thr Asp Gly Val Cys  
325 330 335  
Leu Phe Trp Asn Cys Asn Val Asp Arg Tyr Pro Ala Asn Ala Ile Val  
340 345 350  
Cys Arg Phe Asp Thr Arg Val Leu Ser Asn Leu Asn Leu Pro Gly Cys  
355 360 365  
Asp Gly Gly Ser Leu Tyr Val Asn Lys His Ala Phe His Thr Pro Ala  
370 375 380  
Phe Asp Lys Ser Ala Phe Thr Asn Leu Lys Gln Leu Pro Phe Phe Tyr  
385 390 395 400  
Tyr Ser Asp Ser Pro Cys Glu Ser His Gly Lys Gln Val Val Ser Asp  
405 410 415  
Ile Asp Tyr Val Pro Leu Lys Ser Ala Thr Cys Ile Thr Arg Cys Asn  
420 425 430  
Leu Gly Gly Ala Val Cys Arg His His Ala Asn Glu Tyr Arg Gln Tyr  
435 440 445  
Leu Asp Ala Tyr Asn Met Met Ile Ser Ala Gly Phe Ser Leu Trp Ile  
450 455 460  
Tyr Lys Gln Phe Asp Thr Tyr Asn Leu Trp Asn Thr Phe Thr Arg Leu  
465 470 475 480  
Gln Ser Leu Glu Asn Val Ala Tyr Asn Val Val Asn Lys Gly His Phe  
485 490 495  
Asp Gly His Ala Gly Glu Ala Pro Val Ser Ile Ile Asn Asn Ala Val  
500 505 510  
Tyr Thr Lys Val Asp Gly Ile Asp Val Glu Ile Phe Glu Asn Lys Thr  
515 520 525  
Thr Leu Pro Val Asn Val Ala Phe Glu Leu Trp Ala Lys Arg Asn Ile  
530 535 540  
Lys Pro Val Pro Glu Ile Lys Ile Leu Asn Asn Leu Gly Val Asp Ile  
545 550 555 560

SEQLIST-20480.TXT

Ala Ala Asn Thr Val Ile Trp Asp Tyr Lys Arg Glu Ala Pro Ala His  
565 570 575

Val Ser Thr Ile Gly Val Cys Thr Met Thr Asp Ile Ala Lys Lys Pro  
580 585 590

Thr Glu Ser Ala Cys Ser Ser Leu Thr Val Leu Phe Asp Gly Arg Val  
595 600 605

Glu Gly Gln Val Asp Leu Phe Arg Asn Ala Arg Asn Gly Val Leu Ile  
610 615 620

Thr Glu Gly Ser Val Lys Gly Leu Thr Pro Ser Lys Gly Pro Ala Gln  
625 630 635 640

Ala Ser Val Asn Gly Val Thr Leu Ile Gly Glu Ser Val Lys Thr Gln  
645 650 655

Phe Asn Tyr Phe Lys Lys Val Asp Gly Ile Ile Gln Gln Leu Pro Glu  
660 665 670

Thr Tyr Phe Thr Gln Ser Arg Asp Leu Glu Asp Phe Lys Pro Arg Ser  
675 680 685

Gln Met Glu Thr Asp Phe Leu Glu Leu Ala Met Asp Glu Phe Ile Gln  
690 695 700

Arg Tyr Lys Leu Glu Gly Tyr Ala Phe Glu His Ile Val Tyr Gly Asp  
705 710 715 720

Phe Ser His Gly Gln Leu Gly Gly Leu His Leu Met Ile Gly Leu Ala  
725 730 735

Lys Arg Ser Gln Asp Ser Pro Leu Lys Leu Glu Asp Phe Ile Pro Met  
740 745 750

Asp Ser Thr Val Lys Asn Tyr Phe Ile Thr Asp Ala Gln Thr Gly Ser  
755 760 765

Ser Lys Cys Val Cys Ser Val Ile Asp Leu Leu Leu Asp Asp Phe Val  
770 775 780

Glu Ile Ile Lys Ser Gln Asp Leu Ser Val Ile Ser Lys Val Val Lys  
785 790 795 800

Val Thr Ile Asp Tyr Ala Glu Ile Ser Phe Met Leu Trp Cys Lys Asp  
805 810 815

Gly His Val Glu Thr Phe Tyr Pro Lys Leu Gln Ala Ser Gln Ala Trp  
820 825 830

Gln Pro Gly Val Ala Met Pro Asn Leu Tyr Lys Met Gln Arg Met Leu  
835 840 845

Leu Glu Lys Cys Asp Leu Gln Asn Tyr Gly Glu Asn Ala Val Ile Pro  
850 855 860

Lys Gly Ile Met Met Asn Val Ala Lys Tyr Thr Gln Leu Cys Gln Tyr  
865 870 875 880

Leu Asn Thr Leu Thr Leu Ala Val Pro Tyr Asn Met Arg Val Ile His  
885 890 895



SEQLIST-20480.TXT

Phe Gly Ala Gly Ser Asp Lys Gly Val Ala Pro Gly Thr Ala Val Leu  
900 905 910  
Arg Gln Trp Leu Pro Thr Gly Thr Leu Leu Val Asp Ser Asp Leu Asn  
915 920 925  
Asp Phe Val Ser Asp Ala Asp Ser Thr Leu Ile Gly Asp Cys Ala Thr  
930 935 940  
Val His Thr Ala Asn Lys Trp Asp Leu Ile Ile Ser Asp Met Tyr Asp  
945 950 955 960  
Pro Arg Thr Lys His Val Thr Lys Glu Asn Asp Ser Lys Glu Gly Phe  
965 970 975  
Phe Thr Tyr Leu Cys Gly Phe Ile Lys Gln Lys Leu Ala Leu Gly Gly  
980 985 990  
Ser Ile Ala Val Lys Ile Thr Glu His Ser Trp Asn Ala Asp Leu Tyr  
995 1000 1005  
Lys Leu Met Gly His Phe Ser Trp Trp Thr Ala Phe Val Thr Asn Val  
1010 1015 1020  
Asn Ala Ser Ser Ser Glu Ala Phe Leu Ile Gly Ala Asn Tyr Leu Gly  
1025 1030 1035 1040  
Lys Pro Lys Glu Gln Ile Asp Gly Tyr Thr Met His Ala Asn Tyr Ile  
1045 1050 1055  
Phe Trp Arg Asn Thr Asn Pro Ile Gln Leu Ser Ser Tyr Ser Leu Phe  
1060 1065 1070  
Asp Met Ser Lys Phe Pro Leu Lys Leu Arg Gly Thr Ala Val Met Ser  
1075 1080 1085  
Leu Lys Glu Asn Gln Ile Asn Asp Met Ile Tyr Ser Leu Leu Glu Lys  
1090 1095 1100  
Gly Arg Leu Ile Ile Arg Glu Asn Asn Arg Val Val Val Ser Ser Asp  
1105 1110 1115 1120  
Ile Leu Val Asn Asn  
1125

<210> 11621  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 11621  
Tyr Ala Ile His His  
1 5

<210> 11622  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 11622  
Tyr Ala Thr His His  
1 5

SEQLIST-20480.TXT

<210> 11623  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 11623  
 Ala Ser Gln Ala Trp  
 1 5

<210> 11624  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 11624  
 Ala Ser Arg Ala Trp  
 1 5

<210> 11625  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 11625  
 Asp Ala Asp Ser Thr  
 1 5

<210> 11626  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 11626  
 Asp Ala Tyr Ser Thr  
 1 5

<210> 11627  
 <211> 1255  
 <212> PRT  
 <213> SARS coronavirus

<400> 11627  
 Met Phe Ile Phe Leu Leu Phe Leu Thr Leu Thr Ser Gly Ser Asp Leu  
 1 5 10 15  
 Asp Arg Cys Thr Thr Phe Asp Asp Val Gln Ala Pro Asn Tyr Thr Gln  
 20 25 30  
 His Thr Ser Ser Met Arg Gly Val Tyr Tyr Pro Asp Glu Ile Phe Arg  
 35 40 45  
 Ser Asp Thr Leu Tyr Leu Thr Gln Asp Leu Phe Leu Pro Phe Tyr Ser  
 50 55 60  
 Asn Val Thr Gly Phe His Thr Ile Asn His Thr Phe Gly Asn Pro Val  
 65 70 75 80  
 Ile Pro Phe Lys Asp Gly Ile Tyr Phe Ala Ala Thr Glu Lys Ser Asn  
 85 90 95  
 Val Val Arg Gly Trp Val Phe Gly Ser Thr Met Asn Asn Lys Ser Gln  
 100 105 110

SEQLIST-20480.TXT

Ser Val Ile Ile Ile Asn Asn Ser Thr Asn Val Val Ile Arg Ala Cys  
115 120 125

Asn Phe Glu Leu Cys Asp Asn Pro Phe Phe Ala Val Ser Lys Pro Met  
130 135 140

Gly Thr Gln Thr His Thr Met Ile Phe Asp Asn Ala Phe Asn Cys Thr  
145 150 155 160

Phe Glu Tyr Ile Ser Asp Ala Phe Ser Leu Asp Val Ser Glu Lys Ser  
165 170 175

Gly Asn Phe Lys His Leu Arg Glu Phe Val Phe Lys Asn Lys Asp Gly  
180 185 190

Phe Leu Tyr Val Tyr Lys Gly Tyr Gln Pro Ile Asp Val Val Arg Asp  
195 200 205

Leu Pro Ser Gly Phe Asn Thr Leu Lys Pro Ile Phe Lys Leu Pro Leu  
210 215 220

Gly Ile Asn Ile Thr Asn Phe Arg Ala Ile Leu Thr Ala Phe Ser Pro  
225 230 235 240

Ala Gln Asp Ile Trp Gly Thr Ser Ala Ala Tyr Phe Val Gly Tyr  
245 250 255

Leu Lys Pro Thr Thr Phe Met Leu Lys Tyr Asp Glu Asn Gly Thr Ile  
260 265 270

Thr Asp Ala Val Asp Cys Ser Gln Asn Pro Leu Ala Glu Leu Lys Cys  
275 280 285

Ser Val Lys Ser Phe Glu Ile Asp Lys Gly Ile Tyr Gln Thr Ser Asn  
290 295 300

Phe Arg Val Val Pro Ser Gly Asp Val Val Arg Phe Pro Asn Ile Thr  
305 310 315 320

Asn Leu Cys Pro Phe Gly Glu Val Phe Asn Ala Thr Lys Phe Pro Ser  
325 330 335

Val Tyr Ala Trp Glu Arg Lys Lys Ile Ser Asn Cys Val Ala Asp Tyr  
340 345 350

Ser Val Leu Tyr Asn Ser Thr Phe Phe Ser Thr Phe Lys Cys Tyr Gly  
355 360 365

Val Ser Ala Thr Lys Leu Asn Asp Leu Cys Phe Ser Asn Val Tyr Ala  
370 375 380

Asp Ser Phe Val Val Lys Gly Asp Asp Val Arg Gln Ile Ala Pro Gly  
385 390 395 400

Gln Thr Gly Val Ile Ala Asp Tyr Asn Tyr Lys Leu Pro Asp Asp Phe  
405 410 415

Met Gly Cys Val Leu Ala Trp Asn Thr Arg Asn Ile Asp Ala Thr Ser  
420 425 430

Thr Gly Asn Tyr Asn Tyr Lys Tyr Arg Tyr Leu Arg His Gly Lys Leu  
435 440 445

SEQLIST-20480.TXT

Arg Pro Phe Glu Arg Asp Ile Ser Asn Val Pro Phe Ser Pro Asp Gly  
 450 455 460  
 Lys Pro Cys Thr Pro Pro Ala Leu Asn Cys Tyr Trp Pro Leu Asn Asp  
 465 470 475 480  
 Tyr Gly Phe Tyr Thr Thr Thr Gly Ile Gly Tyr Gln Pro Tyr Arg Val  
 485 490 495  
 Val Val Leu Ser Phe Glu Leu Leu Asn Ala Pro Ala Thr Val Cys Gly  
 500 505 510  
 Pro Lys Leu Ser Thr Asp Leu Ile Lys Asn Gln Cys Val Asn Phe Asn  
 515 520 525  
 Phe Asn Gly Leu Thr Gly Thr Gly Val Leu Thr Pro Ser Ser Lys Arg  
 530 535 540  
 Phe Gln Pro Phe Gln Gln Phe Gly Arg Asp Val Ser Asp Phe Thr Asp  
 545 550 555 560  
 Ser Val Arg Asp Pro Lys Thr Ser Glu Ile Leu Asp Ile Ser Pro Cys  
 565 570 575  
 Ser Phe Gly Gly Val Ser Val Ile Thr Pro Gly Thr Asn Ala Ser Ser  
 580 585 590  
 Glu Val Ala Val Leu Tyr Gln Asp Val Asn Cys Thr Asp Val Ser Thr  
 595 600 605  
 Ala Ile His Ala Asp Gln Leu Thr Pro Ala Trp Arg Ile Tyr Ser Thr  
 610 615 620  
 Gly Asn Asn Val Phe Gln Thr Gln Ala Gly Cys Leu Ile Gly Ala Glu  
 625 630 635 640  
 His Val Asp Thr Ser Tyr Glu Cys Asp Ile Pro Ile Gly Ala Gly Ile  
 645 650 655  
 Cys Ala Ser Tyr His Thr Val Ser Leu Leu Arg Ser Thr Ser Gln Lys  
 660 665 670  
 Ser Ile Val Ala Tyr Thr Met Ser Leu Gly Ala Asp Ser Ser Ile Ala  
 675 680 685  
 Tyr Ser Asn Asn Thr Ile Ala Ile Pro Thr Asn Phe Ser Ile Ser Ile  
 690 695 700  
 Thr Thr Glu Val Met Pro Val Ser Met Ala Lys Thr Ser Val Asp Cys  
 705 710 715 720  
 Asn Met Tyr Ile Cys Gly Asp Ser Thr Glu Cys Ala Asn Leu Leu Leu  
 725 730 735  
 Gln Tyr Gly Ser Phe Cys Thr Gln Leu Asn Arg Ala Leu Ser Gly Ile  
 740 745 750  
 Ala Ala Glu Gln Asp Arg Asn Thr Arg Glu Val Phe Ala Gln Val Lys  
 755 760 765  
 Gln Met Tyr Lys Thr Pro Thr Leu Lys Tyr Phe Gly Gly Phe Asn Phe  
 770 775 780

SEQLIST-20480.TXT

Ser Gln Ile Leu Pro Asp Pro Leu Lys Pro Thr Lys Arg Ser Phe Ile  
785 790 795 800  
Glu Asp Leu Leu Phe Asn Lys Val Thr Leu Ala Asp Ala Gly Phe Met  
805 810 815  
Lys Gln Tyr Gly Glu Cys Leu Gly Asp Ile Asn Ala Arg Asp Leu Ile  
820 825 830  
Cys Ala Gln Lys Phe Asn Gly Leu Thr Val Leu Pro Pro Leu Leu Thr  
835 840 845  
Asp Asp Met Ile Ala Ala Tyr Thr Ala Ala Leu Val Ser Gly Thr Ala  
850 855 860  
Thr Ala Gly Trp Thr Phe Gly Ala Gly Ala Ala Leu Gln Ile Pro Phe  
865 870 875 880  
Ala Met Gln Met Ala Tyr Arg Phe Asn Gly Ile Gly Val Thr Gln Asn  
885 890 895  
Val Leu Tyr Glu Asn Gln Lys Gln Ile Ala Asn Gln Phe Asn Lys Ala  
900 905 910  
Ile Ser Gln Ile Gln Glu Ser Leu Thr Thr Thr Ser Thr Ala Leu Gly  
915 920 925  
Lys Leu Gln Asp Val Val Asn Gln Asn Ala Gln Ala Leu Asn Thr Leu  
930 935 940  
Val Lys Gln Leu Ser Ser Asn Phe Gly Ala Ile Ser Ser Val Leu Asn  
945 950 955 960  
Asp Ile Leu Ser Arg Leu Asp Lys Val Glu Ala Glu Val Gln Ile Asp  
965 970 975  
Arg Leu Ile Thr Gly Arg Leu Gln Ser Leu Gln Thr Tyr Val Thr Gln  
980 985 990  
Gln Leu Ile Arg Ala Ala Glu Ile Arg Ala Ser Ala Asn Leu Ala Ala  
995 1000 1005  
Thr Lys Met Ser Glu Cys Val Leu Gly Gln Ser Lys Arg Val Asp Phe  
1010 1015 1020  
Cys Gly Lys Gly Tyr His Leu Met Ser Phe Pro Gln Ala Ala Pro His  
1025 1030 1035 1040  
Gly Val Val Phe Leu His Val Thr Tyr Val Pro Ser Gln Glu Arg Asn  
1045 1050 1055  
Phe Thr Thr Ala Pro Ala Ile Cys His Glu Gly Lys Ala Tyr Phe Pro  
1060 1065 1070  
Arg Glu Gly Val Phe Val Phe Asn Gly Thr Ser Trp Phe Ile Thr Gln  
1075 1080 1085  
Arg Asn Phe Phe Ser Pro Gln Ile Ile Thr Thr Asp Asn Thr Phe Val  
1090 1095 1100  
Ser Gly Asn Cys Asp Val Val Ile Gly Ile Ile Asn Asn Thr Val Tyr  
1105 1110 1115 1120

SEQLIST-20480.TXT

Asp Pro Leu Gln Pro Glu Leu Asp Ser Phe Lys Glu Glu Leu Asp Lys  
1125 1130 1135

Tyr Phe Lys Asn His Thr Ser Pro Asp Val Asp Phe Gly Asp Ile Ser  
1140 1145 1150

Gly Ile Asn Ala Ser Val Val Asn Ile Gln Lys Glu Ile Asp Arg Leu  
1155 1160 1165

Asn Glu Val Ala Lys Asn Leu Asn Glu Ser Leu Ile Asp Leu Gln Glu  
1170 1175 1180

Leu Gly Lys Tyr Glu Gln Tyr Ile Lys Trp Pro Trp Tyr Val Trp Leu  
1185 1190 1195 1200

Gly Phe Ile Ala Gly Leu Ile Ala Ile Val Met Val Thr Ile Leu Leu  
1205 1210 1215

Cys Cys Met Thr Ser Cys Cys Ser Cys Leu Lys Gly Ala Cys Ser Cys  
1220 1225 1230

Gly Ser Cys Cys Lys Phe Asp Glu Asp Asp Ser Glu Pro Val Leu Lys  
1235 1240 1245

Gly Val Lys Leu His Tyr Thr  
1250 1255

<210> 11628  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 11628  
Pro Cys Ser Phe Gly  
1 5

<210> 11629  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 11629  
Pro Cys Ala Phe Gly  
1 5

<210> 11630  
<211> 221  
<212> PRT  
<213> SARS coronavirus

<400> 11630  
Met Ala Asp Asn Gly Thr Ile Thr Val Glu Glu Leu Lys Gln Leu Leu  
1 5 10 15

Glu Gln Trp Asn Leu Val Ile Gly Phe Leu Phe Leu Ala Trp Ile Met  
20 25 30

Leu Leu Gln Phe Ala Tyr Ser Asn Arg Asn Arg Phe Leu Tyr Ile Ile  
35 40 45

Lys Leu Val Phe Leu Trp Leu Leu Trp Pro Val Thr Leu Ala Cys Phe  
50 55 60

SEQLIST-20480.TXT

Val Leu Ala Val Val Tyr Arg Ile Asn Trp Val Thr Gly Gly Ile Ala  
65 70 75 80  
Ile Ala Met Ala Cys Ile Val Gly Leu Met Trp Leu Ser Tyr Phe Val  
85 90 95  
Ala Ser Phe Arg Leu Phe Ala Arg Thr Arg Ser Met Trp Ser Phe Asn  
100 105 110  
Pro Glu Thr Asn Ile Leu Leu Asn Val Pro Leu Arg Gly Thr Ile Val  
115 120 125  
Thr Arg Pro Leu Met Glu Ser Glu Leu Val Ile Gly Ala Val Ile Ile  
130 135 140  
Arg Gly His Leu Arg Met Ala Gly His Ser Leu Gly Arg Cys Asp Ile  
145 150 155 160  
Lys Asp Leu Pro Lys Glu Ile Thr Val Ala Thr Ser Arg Thr Leu Ser  
165 170 175  
Tyr Tyr Lys Leu Gly Ala Ser Gln Arg Val Gly Thr Asp Ser Gly Phe  
180 185 190  
Ala Ala Tyr Asn Arg Tyr Arg Ile Gly Asn Tyr Lys Leu Asn Thr Asp  
195 200 205  
His Ala Gly Ser Asn Asp Asn Ile Ala Leu Leu Val Gln  
210 215 220

<210> 11631  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 11631  
Leu Ala Val Val Tyr  
1 5

<210> 11632  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 11632  
Leu Ala Ala Val Tyr  
1 5

<210> 11633  
<211> 397  
<212> PRT  
<213> SARS coronavirus

<400> 11633  
Met Ser Asp Asn Gly Pro Gln Ser Asn Gln Arg Ser Ala Pro Arg Ile  
1 5 10 15  
Thr Phe Gly Gly Pro Thr Asp Ser Thr Asp Asn Asn Gln Asn Gly Gly  
20 25 30  
Arg Asn Gly Ala Arg Pro Lys Gln Arg Arg Pro Gln Gly Leu Pro Asn  
35 40 45

SEQLIST-20480.TXT

Asn Ile Ala Ser Trp Phe Thr Ala Leu Thr Gln His Gly Lys Glu Glu  
 50 55 60  
 Leu Arg Phe Pro Arg Gly Gln Gly Val Pro Ile Asn Thr Asn Ser Gly  
 65 70 75 80  
 Pro Asp Asp Gln Ile Gly Tyr Tyr Arg Arg Ala Thr Arg Arg Val Arg  
 85 90 95  
 Gly Gly Asp Gly Lys Met Lys Glu Leu Ser Pro Arg Trp Tyr Phe Tyr  
 100 105 110  
 Tyr Leu Gly Thr Gly Pro Glu Ala Ser Leu Pro Tyr Gly Ala Asn Lys  
 115 120 125  
 Glu Gly Ile Val Trp Val Ala Thr Glu Gly Ala Leu Asn Thr Pro Lys  
 130 135 140  
 Asp His Ile Gly Thr Arg Asn Pro Asn Asn Asn Ala Ala Thr Val Leu  
 145 150 155 160  
 Gln Leu Pro Gln Gly Thr Thr Leu Pro Lys Gly Phe Tyr Ala Glu Gly  
 165 170 175  
 Ser Arg Gly Gly Ser Gln Ala Ser Ser Arg Ser Ser Ser Arg Ser Arg  
 180 185 190  
 Gly Asn Ser Arg Asn Ser Thr Pro Gly Ser Ser Arg Gly Asn Ser Pro  
 195 200 205  
 Ala Arg Met Ala Ser Gly Gly Gly Glu Thr Ala Leu Ala Leu Leu Leu  
 210 215 220  
 Leu Asp Arg Leu Asn Gln Leu Glu Ser Lys Val Ser Gly Lys Gly Gln  
 225 230 235 240  
 Gln Gln Gln Gly Gln Thr Val Thr Lys Lys Ser Ala Ala Glu Ala Ser  
 245 250 255  
 Lys Lys Pro Arg Gln Lys Arg Thr Ala Thr Lys Gln Tyr Asn Val Thr  
 260 265 270  
 Gln Ala Phe Gly Arg Arg Gly Pro Glu Gln Thr Gln Gly Asn Phe Gly  
 275 280 285  
 Asp Gln Asp Leu Ile Arg Gln Gly Thr Asp Tyr Lys His Trp Pro Gln  
 290 295 300  
 Ile Ala Gln Phe Ala Pro Ser Ala Ser Ala Phe Phe Gly Met Ser Arg  
 305 310 315 320  
 Ile Gly Met Glu Val Thr Pro Ser Gly Thr Trp Leu Thr Tyr His Gly  
 325 330 335  
 Ala Ile Lys Leu Asp Asp Lys Asp Pro Gln Phe Lys Asp Asn Val Ile  
 340 345 350  
 Leu Leu Asn Lys His Ile Asp Ala Tyr Lys Thr Phe Pro Pro Thr Glu  
 355 360 365  
 Pro Lys Lys Asp Lys Lys Lys Lys Thr Asp Glu Ala Gln Pro Leu Pro  
 370 375 380



Gln Arg Gln Lys Lys Gln Pro Thr Val Thr Leu Leu Pro  
385 390 395

<210> 11634  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 11634  
Asn Asn Ile Ala Ser  
1 5

<210> 11635  
<211> 5  
<212> PRT  
<213> SARS coronavirus

<400> 11635  
Asn Asn Thr Ala Ser  
1 5

<210> 11636  
<211> 2712  
<212> PRT  
<213> SARS coronavirus

<400> 11636  
Pro Thr Pro Arg Thr Leu Asp Ala Val Cys Gly Cys Ile Asn Val Phe  
1 5 10 15

Lys Arg Val Cys Gly Val Ser Ala Ala Arg Leu Thr Pro Cys Gly Thr  
20 25 30

Gly Thr Ser Thr Asp Val Val Tyr Arg Ala Phe Asp Ile Tyr Asn Glu  
35 40 45

Lys Val Ala Gly Phe Ala Lys Phe Leu Lys Thr Asn Cys Cys Arg Phe  
50 55 60

Gln Glu Lys Asp Glu Glu Gly Asn Leu Leu Asp Ser Tyr Phe Val Val  
65 70 75 80

Lys Arg His Thr Met Ser Asn Tyr Gln His Glu Glu Thr Ile Tyr Asn  
85 90 95

Leu Val Lys Asp Cys Pro Ala Val Ala Val His Asp Phe Phe Lys Phe  
100 105 110

Arg Val Asp Gly Asp Met Val Pro His Ile Ser Arg Gln Arg Leu Thr  
115 120 125

Lys Tyr Thr Met Ala Asp Leu Val Tyr Ala Leu Arg His Phe Asp Glu  
130 135 140

Gly Asn Cys Asp Thr Leu Lys Glu Ile Leu Val Thr Tyr Asn Cys Cys  
145 150 155 160

Asp Asp Asp Tyr Phe Asn Lys Lys Asp Trp Tyr Asp Phe Val Glu Asn  
165 170 175

Pro Asp Ile Leu Arg Val Tyr Ala Asn Leu Gly Glu Arg Val Arg Gln  
180 185 190

SEQLIST-20480.TXT

Ser Leu Leu Lys Thr Val Gln Phe Cys Asp Ala Met Arg Asp Ala Gly  
195 200 205  
Ile Val Gly Val Leu Thr Leu Asp Asn Gln Asp Leu Asn Gly Asn Trp  
210 215 220  
Tyr Asp Phe Gly Asp Phe Val Gln Val Ala Pro Gly Cys Gly Val Pro  
225 230 235 240  
Ile Val Asp Ser Tyr Tyr Ser Leu Leu Met Pro Ile Leu Thr Leu Thr  
245 250 255  
Arg Ala Leu Ala Ala Glu Ser His Met Asp Ala Asp Leu Ala Lys Pro  
260 265 270  
Leu Ile Lys Trp Asp Leu Leu Lys Tyr Asp Phe Thr Glu Glu Arg Leu  
275 280 285  
Cys Leu Phe Asp Arg Tyr Phe Lys Tyr Trp Asp Gln Thr Tyr His Pro  
290 295 300  
Asn Cys Ile Asn Cys Leu Asp Asp Arg Cys Ile Leu His Cys Ala Asn  
305 310 315 320  
Phe Asn Val Leu Phe Ser Thr Val Phe Pro Pro Thr Ser Phe Gly Pro  
325 330 335  
Leu Val Arg Lys Ile Phe Val Asp Gly Val Pro Phe Val Val Ser Thr  
340 345 350  
Gly Tyr His Phe Arg Glu Leu Gly Val Val His Asn Gln Asp Val Asn  
355 360 365  
Leu His Ser Ser Arg Leu Ser Phe Lys Glu Leu Leu Val Tyr Ala Ala  
370 375 380  
Asp Pro Ala Met His Ala Ala Ser Gly Asn Leu Leu Leu Asp Lys Arg  
385 390 395 400  
Thr Thr Cys Phe Ser Val Ala Ala Leu Thr Asn Asn Val Ala Phe Gln  
405 410 415  
Thr Val Lys Pro Gly Asn Phe Asn Lys Asp Phe Tyr Asp Phe Ala Val  
420 425 430  
Ser Lys Gly Phe Phe Lys Glu Gly Ser Ser Val Glu Leu Lys His Phe  
435 440 445  
Phe Phe Ala Gln Asp Gly Asn Ala Ala Ile Ser Asp Tyr Asp Tyr Tyr  
450 455 460  
Arg Tyr Asn Leu Pro Thr Met Cys Asp Ile Arg Gln Leu Leu Phe Val  
465 470 475 480  
Val Glu Val Val Asp Lys Tyr Phe Asp Cys Tyr Asp Gly Gly Cys Ile  
485 490 495  
Asn Ala Asn Gln Val Ile Val Asn Asn Leu Asp Lys Ser Ala Gly Phe  
500 505 510  
Pro Phe Asn Lys Trp Gly Lys Ala Arg Leu Tyr Tyr Asp Ser Met Ser  
515 520 525

SEQLIST-20480.TXT

Tyr Glu Asp Gln Asp Ala Leu Phe Ala Tyr Thr Lys Arg Asn Val Ile  
 530 535 540  
 Pro Thr Ile Thr Gln Met Asn Leu Lys Tyr Ala Ile Ser Ala Lys Asn  
 545 550 555 560  
 Arg Ala Arg Thr Val Ala Gly Val Ser Ile Cys Ser Thr Met Thr Asn  
 565 570 575  
 Arg Gln Phe His Gln Lys Leu Leu Lys Ser Ile Ala Ala Thr Arg Gly  
 580 585 590  
 Ala Thr Val Val Ile Gly Thr Ser Lys Phe Tyr Gly Gly Trp His Asn  
 595 600 605  
 Met Leu Lys Thr Val Tyr Ser Asp Val Glu Thr Pro His Leu Met Gly  
 610 615 620  
 Trp Asp Tyr Pro Lys Cys Asp Arg Ala Met Pro Asn Met Leu Arg Ile  
 625 630 635 640  
 Met Ala Ser Leu Val Leu Ala Arg Lys His Asn Thr Cys Cys Asn Leu  
 645 650 655  
 Ser His Arg Phe Tyr Arg Leu Ala Asn Glu Cys Ala Gln Val Leu Ser  
 660 665 670  
 Glu Met Val Met Cys Gly Gly Ser Leu Tyr Val Lys Pro Gly Gly Thr  
 675 680 685  
 Ser Ser Gly Asp Ala Thr Thr Ala Tyr Ala Asn Ser Val Phe Asn Ile  
 690 695 700  
 Cys Gln Ala Val Thr Ala Asn Val Asn Ala Leu Leu Ser Thr Asp Gly  
 705 710 715 720  
 Asn Lys Ile Ala Asp Lys Tyr Val Arg Asn Leu Gln His Arg Leu Tyr  
 725 730 735  
 Glu Cys Leu Tyr Arg Asn Arg Asp Val Asp His Glu Phe Val Asp Glu  
 740 745 750  
 Phe Tyr Ala Tyr Leu Arg Lys His Phe Ser Met Met Ile Leu Ser Asp  
 755 760 765  
 Asp Ala Val Val Cys Tyr Asn Ser Asn Tyr Ala Ala Gln Gly Leu Val  
 770 775 780  
 Ala Ser Ile Lys Asn Phe Lys Ala Val Leu Tyr Tyr Gln Asn Asn Val  
 785 790 795 800  
 Phe Met Ser Glu Ala Lys Cys Trp Thr Glu Thr Asp Leu Thr Lys Gly  
 805 810 815  
 Pro His Glu Phe Cys Ser Gln His Thr Met Leu Val Lys Gln Gly Asp  
 820 825 830  
 Asp Tyr Val Tyr Leu Pro Tyr Pro Asp Pro Ser Arg Ile Leu Gly Ala  
 835 840 845  
 Gly Cys Phe Val Asp Asp Ile Val Lys Thr Asp Gly Thr Leu Met Ile  
 850 855 860

SEQLIST-20480.TXT

Glu Arg Phe Val Ser Leu Ala Ile Asp Ala Tyr Pro Leu Thr Lys His  
 865 870 875 880  
 Pro Asn Gln Glu Tyr Ala Asp Val Phe His Leu Tyr Leu Gln Tyr Ile  
 885 890 895  
 Arg Lys Leu His Asp Glu Leu Thr Gly His Met Leu Asp Met Tyr Ser  
 900 905 910  
 Val Met Leu Thr Asn Asp Asn Thr Ser Arg Tyr Trp Glu Pro Glu Phe  
 915 920 925  
 Tyr Glu Ala Met Tyr Thr Pro His Thr Val Leu Gln Ala Val Ser Ala  
 930 935 940  
 Cys Val Leu Cys Asn Ser Gln Thr Ser Leu Arg Cys Gly Ala Cys Ile  
 945 950 955 960  
 Arg Arg Pro Phe Leu Cys Cys Lys Cys Cys Tyr Asp His Val Ile Ser  
 965 970 975  
 Thr Ser His Lys Leu Val Leu Ser Val Asn Pro Tyr Val Cys Asn Ala  
 980 985 990  
 Pro Gly Cys Asp Val Thr Asp Val Thr Gln Leu Tyr Leu Gly Gly Met  
 995 1000 1005  
 Ser Tyr Tyr Cys Lys Ser His Lys Pro Pro Ile Ser Phe Pro Leu Cys  
 1010 1015 1020  
 Ala Asn Gly Gln Val Phe Gly Leu Tyr Lys Asn Thr Cys Val Gly Ser  
 1025 1030 1035 1040  
 Asp Asn Val Thr Asp Phe Asn Ala Ile Ala Thr Cys Asp Trp Thr Asn  
 1045 1050 1055  
 Ala Gly Asp Tyr Ile Leu Ala Asn Thr Cys Thr Glu Arg Leu Lys Leu  
 1060 1065 1070  
 Phe Ala Ala Glu Thr Leu Lys Ala Thr Glu Glu Thr Phe Lys Leu Ser  
 1075 1080 1085  
 Tyr Gly Ile Ala Thr Val Arg Glu Val Leu Ser Asp Arg Glu Leu His  
 1090 1095 1100  
 Leu Ser Trp Glu Val Gly Lys Pro Arg Pro Pro Leu Asn Arg Asn Tyr  
 1105 1110 1115 1120  
 Val Phe Thr Gly Tyr Arg Val Thr Lys Asn Ser Lys Val Gln Ile Gly  
 1125 1130 1135  
 Glu Tyr Thr Phe Glu Lys Gly Asp Tyr Gly Asp Ala Val Val Tyr Arg  
 1140 1145 1150  
 Gly Thr Thr Thr Tyr Lys Leu Asn Val Gly Asp Tyr Phe Val Leu Thr  
 1155 1160 1165  
 Ser His Thr Val Met Pro Leu Ser Ala Pro Thr Leu Val Pro Gln Glu  
 1170 1175 1180  
 His Tyr Val Arg Ile Thr Gly Leu Tyr Pro Thr Leu Asn Ile Ser Asp  
 1185 1190 1195 1200

SEQLIST-20480.TXT

Glu Phe Ser Ser Asn Val Ala Asn Tyr Gln Lys Val Gly Met Gln Lys  
1205 1210 1215

Tyr Ser Thr Leu Gln Gly Pro Pro Gly Thr Gly Lys Ser His Phe Ala  
1220 1225 1230

Ile Gly Leu Ala Leu Tyr Tyr Pro Ser Ala Arg Ile Val Tyr Thr Ala  
1235 1240 1245

Cys Ser His Ala Ala Val Asp Ala Leu Cys Glu Lys Ala Leu Lys Tyr  
1250 1255 1260

Leu Pro Ile Asp Lys Cys Ser Arg Ile Ile Pro Ala Arg Ala Arg Val  
1265 1270 1275 1280

Glu Cys Phe Asp Lys Phe Lys Val Asn Ser Thr Leu Glu Gln Tyr Val  
1285 1290 1295

Phe Cys Thr Val Asn Ala Leu Pro Glu Thr Thr Ala Asp Ile Val Val  
1300 1305 1310

Phe Asp Glu Ile Ser Met Ala Thr Asn Tyr Asp Leu Ser Val Val Asn  
1315 1320 1325

Ala Arg Leu Arg Ala Lys His Tyr Val Tyr Ile Gly Asp Pro Ala Gln  
1330 1335 1340

Leu Pro Ala Pro Arg Thr Leu Leu Thr Lys Gly Thr Leu Glu Pro Glu  
1345 1350 1355 1360

Tyr Phe Asn Ser Val Cys Arg Leu Met Lys Thr Ile Gly Pro Asp Met  
1365 1370 1375

Phe Leu Gly Thr Cys Arg Arg Cys Pro Ala Glu Ile Val Asp Thr Val  
1380 1385 1390

Ser Ala Leu Val Tyr Asp Asn Lys Leu Lys Ala His Lys Asp Lys Ser  
1395 1400 1405

Ala Gln Cys Phe Lys Met Phe Tyr Lys Gly Val Ile Thr His Asp Val  
1410 1415 1420

Ser Ser Ala Ile Asn Arg Pro Gln Ile Gly Val Val Arg Glu Phe Leu  
1425 1430 1435 1440

Thr Arg Asn Pro Ala Trp Arg Lys Ala Val Phe Ile Ser Pro Tyr Asn  
1445 1450 1455

Ser Gln Asn Ala Val Ala Ser Lys Ile Leu Gly Leu Pro Thr Gln Thr  
1460 1465 1470

Val Asp Ser Ser Gln Gly Ser Glu Tyr Asp Tyr Val Ile Phe Thr Gln  
1475 1480 1485

Thr Thr Glu Thr Ala His Ser Cys Asn Val Asn Arg Phe Asn Val Ala  
1490 1495 1500

Ile Thr Arg Ala Lys Ile Gly Ile Leu Cys Ile Met Ser Asp Arg Asp  
1505 1510 1515 1520

Leu Tyr Asp Lys Leu Gln Phe Thr Ser Leu Glu Ile Pro Arg Arg Asn  
1525 1530 1535

SEQLIST-20480.TXT

Val Ala Thr Leu Gln Ala Glu Asn Val Thr Gly Leu Phe Lys Asp Cys  
1540 1545 1550

Ser Lys Ile Ile Thr Gly Leu His Pro Thr Gln Ala Pro Thr His Leu  
1555 1560 1565

Ser Val Asp Ile Lys Phe Lys Thr Glu Gly Leu Cys Val Asp Ile Pro  
1570 1575 1580

Gly Ile Pro Lys Asp Met Thr Tyr Arg Arg Leu Ile Ser Met Met Gly  
1585 1590 1600

Phe Lys Met Asn Tyr Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr  
1605 1610 1615

Arg Glu Glu Ala Ile Arg His Val Arg Ala Trp Ile Gly Phe Asp Val  
1620 1625 1630

Glu Gly Cys His Ala Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu  
1635 1640 1645

Gln Leu Gly Phe Ser Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly  
1650 1655 1660

Tyr Val Asp Thr Glu Asn Asn Thr Glu Phe Thr Arg Val Asn Ala Lys  
1665 1670 1675 1680

Pro Pro Pro Gly Asp Gln Phe Lys His Leu Ile Pro Leu Met Tyr Lys  
1685 1690 1695

Gly Leu Pro Trp Asn Val Val Arg Ile Lys Ile Val Gln Met Leu Ser  
1700 1705 1710

Asp Thr Leu Lys Gly Leu Ser Asp Arg Val Val Phe Val Leu Trp Ala  
1715 1720 1725

His Gly Phe Glu Leu Thr Ser Met Lys Tyr Phe Val Lys Ile Gly Pro  
1730 1735 1740

Glu Arg Thr Cys Cys Leu Cys Asp Lys Arg Ala Thr Cys Phe Ser Thr  
1745 1750 1755 1760

Ser Ser Asp Thr Tyr Ala Cys Trp Asn His Ser Val Gly Phe Asp Tyr  
1765 1770 1775

Val Tyr Asn Pro Phe Met Ile Asp Val Gln Gln Trp Gly Phe Thr Gly  
1780 1785 1790

Asn Leu Gln Ser Asn His Asp Gln His Cys Gln Val His Gly Asn Ala  
1795 1800 1805

His Val Ala Ser Cys Asp Ala Ile Met Thr Arg Cys Leu Ala Val His  
1810 1815 1820

Glu Cys Phe Val Lys Arg Val Asp Trp Ser Val Glu Tyr Pro Ile Ile  
1825 1830 1835 1840

Gly Asp Glu Leu Arg Val Asn Ser Ala Cys Arg Lys Val Gln His Met  
1845 1850 1855

Val Val Lys Ser Ala Leu Leu Ala Asp Lys Phe Pro Val Leu His Asp  
1860 1865 1870

SEQLIST-20480.TXT

Ile Gly Asn Pro Lys Ala Ile Lys Cys Val Pro Gln Ala Glu Val Glu  
1875 1880 1885

Trp Lys Phe Tyr Asp Ala Gln Pro Cys Ser Asp Lys Ala Tyr Lys Ile  
1890 1895 1900

Glu Glu Leu Phe Tyr Ser Tyr Ala Thr His His Asp Lys Phe Thr Asp  
1905 1910 1915 1920

Gly Val Cys Leu Phe Trp Asn Cys Asn Val Asp Arg Tyr Pro Ala Asn  
1925 1930 1935

Ala Ile Val Cys Arg Phe Asp Thr Arg Val Leu Ser Asn Leu Asn Leu  
1940 1945 1950

Pro Gly Cys Asp Gly Gly Ser Leu Tyr Val Asn Lys His Ala Phe His  
1955 1960 1965

Thr Pro Ala Phe Asp Lys Ser Ala Phe Thr Asn Leu Lys Gln Leu Pro  
1970 1975 1980

Phe Phe Tyr Tyr Ser Asp Ser Pro Cys Glu Ser His Gly Lys Gln Val  
1985 1990 1995 2000

Val Ser Asp Ile Asp Tyr Val Pro Leu Lys Ser Ala Thr Cys Ile Thr  
2005 2010 2015

Arg Cys Asn Leu Gly Gly Ala Val Cys Arg His His Ala Asn Glu Tyr  
2020 2025 2030

Arg Gln Tyr Leu Asp Ala Tyr Asn Met Met Ile Ser Ala Gly Phe Ser  
2035 2040 2045

Leu Trp Ile Tyr Lys Gln Phe Asp Thr Tyr Asn Leu Trp Asn Thr Phe  
2050 2055 2060

Thr Arg Leu Gln Ser Leu Glu Asn Val Ala Tyr Asn Val Val Asn Lys  
2065 2070 2075 2080

Gly His Phe Asp Gly His Ala Gly Glu Ala Pro Val Ser Ile Ile Asn  
2085 2090 2095

Asn Ala Val Tyr Thr Lys Val Asp Gly Ile Asp Val Glu Ile Phe Glu  
2100 2105 2110

Asn Lys Thr Thr Leu Pro Val Asn Val Ala Phe Glu Leu Trp Ala Lys  
2115 2120 2125

Arg Asn Ile Lys Pro Val Pro Glu Ile Lys Ile Leu Asn Asn Leu Gly  
2130 2135 2140

Val Asp Ile Ala Ala Asn Thr Val Ile Trp Asp Tyr Lys Arg Glu Ala  
2145 2150 2155 2160

Pro Ala His Val Ser Thr Ile Gly Val Cys Thr Met Thr Asp Ile Ala  
2165 2170 2175

Lys Lys Pro Thr Glu Ser Ala Cys Ser Ser Leu Thr Val Leu Phe Asp  
2180 2185 2190

Gly Arg Val Glu Gly Gln Val Asp Leu Phe Arg Asn Ala Arg Asn Gly  
2195 2200 2205

SEQLIST-20480.TXT

Val Leu Ile Thr Glu Gly Ser Val Lys Gly Leu Thr Pro Ser Lys Gly  
2210 2215 2220

Pro Ala Gln Ala Ser Val Asn Gly Val Thr Leu Ile Gly Glu Ser Val  
2225 2230 2235 2240

Lys Thr Gln Phe Asn Tyr Phe Lys Lys Val Asp Gly Ile Ile Gln Gln  
2245 2250 2255

Leu Pro Glu Thr Tyr Phe Thr Gln Ser Arg Asp Leu Glu Asp Phe Lys  
2260 2265 2270

Pro Arg Ser Gln Met Glu Thr Asp Phe Leu Glu Leu Ala Met Asp Glu  
2275 2280 2285

Phe Ile Gln Arg Tyr Lys Leu Glu Gly Tyr Ala Phe Glu His Ile Val  
2290 2295 2300

Tyr Gly Asp Phe Ser His Gly Gln Leu Gly Gly Leu His Leu Met Ile  
2305 2310 2315 2320

Gly Leu Ala Lys Arg Ser Gln Asp Ser Pro Leu Lys Leu Glu Asp Phe  
2325 2330 2335

Ile Pro Met Asp Ser Thr Val Lys Asn Tyr Phe Ile Thr Asp Ala Gln  
2340 2345 2350

Thr Gly Ser Ser Lys Cys Val Cys Ser Val Ile Asp Leu Leu Leu Asp  
2355 2360 2365

Asp Phe Val Glu Ile Ile Lys Ser Gln Asp Leu Ser Val Ile Ser Lys  
2370 2375 2380

Val Val Lys Val Thr Ile Asp Tyr Ala Glu Ile Ser Phe Met Leu Trp  
2385 2390 2395 2400

Cys Lys Asp Gly His Val Glu Thr Phe Tyr Pro Lys Leu Gln Ala Ser  
2405 2410 2415

Arg Ala Trp Gln Pro Gly Val Ala Met Pro Asn Leu Tyr Lys Met Gln  
2420 2425 2430

Arg Met Leu Leu Glu Lys Cys Asp Leu Gln Asn Tyr Gly Glu Asn Ala  
2435 2440 2445

Val Ile Pro Lys Gly Ile Met Met Asn Val Ala Lys Tyr Thr Gln Leu  
2450 2455 2460

Cys Gln Tyr Leu Asn Thr Leu Thr Leu Ala Val Pro Tyr Asn Met Arg  
2465 2470 2475 2480

Val Ile His Phe Gly Ala Gly Ser Asp Lys Gly Val Ala Pro Gly Thr  
2485 2490 2495

Ala Val Leu Arg Gln Trp Leu Pro Thr Gly Thr Leu Leu Val Asp Ser  
2500 2505 2510

Asp Leu Asn Asp Phe Val Ser Asp Ala Tyr Ser Thr Leu Ile Gly Asp  
2515 2520 2525

Cys Ala Thr Val His Thr Ala Asn Lys Trp Asp Leu Ile Ile Ser Asp  
2530 2535 2540



SEQLIST-20480.TXT

Met Tyr Asp Pro Arg Thr Lys His Val Thr Lys Glu Asn Asp Ser Lys  
 2545 2550 2555 2560  
 Glu Gly Phe Phe Thr Tyr Leu Cys Gly Phe Ile Lys Gln Lys Leu Ala  
 2565 2570 2575  
 Leu Gly Gly Ser Ile Ala Val Lys Ile Thr Glu His Ser Trp Asn Ala  
 2580 2585 2590  
 Asp Leu Tyr Lys Leu Met Gly His Phe Ser Trp Trp Thr Ala Phe Val  
 2595 2600 2605  
 Thr Asn Val Asn Ala Ser Ser Ser Glu Ala Phe Leu Ile Gly Ala Asn  
 2610 2615 2620  
 Tyr Leu Gly Lys Pro Lys Glu Gln Ile Asp Gly Tyr Thr Met His Ala  
 2625 2630 2635 2640  
 Asn Tyr Ile Phe Trp Arg Asn Thr Asn Pro Ile Gln Leu Ser Ser Tyr  
 2645 2650 2655  
 Ser Leu Phe Asp Met Ser Lys Phe Pro Leu Lys Leu Arg Gly Thr Ala  
 2660 2665 2670  
 Val Met Ser Leu Lys Glu Asn Gln Ile Asn Asp Met Ile Tyr Ser Leu  
 2675 2680 2685  
 Leu Glu Lys Gly Arg Leu Ile Ile Arg Glu Asn Asn Arg Val Val Val  
 2690 2695 2700  
 Ser Ser Asp Ile Leu Val Asn Asn  
 2705 2710

<210> 11637  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 11637  
 Ala Val Ser Ala Cys  
 1 5

<210> 11638  
 <211> 5  
 <212> PRT  
 <213> SARS coronavirus

<400> 11638  
 Ala Val Gly Ala Cys  
 1 5

<210> 11639  
 <211> 11207  
 <212> DNA  
 <213> SARS coronavirus

<400> 11639  
 caaaggacat gacctaccgt agactcatct ctatgatggg tttcaaaatg aattaccaag 60  
 tcaatgggta ccctaatatg tttatcaccc gcgaagaagc tattcgtcac gttcgtgcgt 120  
 ggattggctt tgatgtagag ggctgtcatg caactagaga tgctgtgggt actaacctac 180  
 ctctccagct aggatgttct acagggtgta acttagtagc tgtaccgact gggtatgttg 240  
 acactgaaaa taacacagaa ttcaccagag ttaatgcaaa acctccacca ggtgaccagt 300  
 ttaaacaatct tataaccactc atgtataaag gcttgccctg gaatgtagtg cgtattaaga 360

SEQLIST-20480.TXT

tagtacaaat	gctcagtgat	acactgaaa	gattgtcaga	cagagtcgtg	ttcgtccttt	420
gggcgcatgg	ctttgagctt	acatcaatga	agtactttgt	caagattgga	cctgaaagaa	480
cgtgtttgtct	gtgtgacaaa	cgtgcaactt	gctttttctac	ttcatcagat	acttatgcct	540
gctggaatca	ttctgtgggt	tttgactatg	tctataaacc	atztatgatt	gatgttcagc	600
agtggggctt	tacgggtaac	cttcagagta	accatgacca	acattgccag	gtacatggaa	660
atgcacatgt	ggctagtgtg	gatgctatca	tgactagatg	tttagcagtc	catgagtgtc	720
ttgttaagcg	cgttgattgg	tctgttgaat	accctattat	aggagatgaa	ctgaggggta	780
attctgcttg	cagaaaagta	caacacatgg	ttgtgaagtc	tgcaattgctt	gctgataagt	840
ttccagttct	tcatgacata	ggaaatccaa	aggctatcaa	gtgtgtgcct	caggctgaag	900
tagaatggaa	gttctacgat	gctcagccat	gtagtacaaa	agcttacaaa	atagaggaac	960
tcttctattc	ttatgctata	catcacgata	aattcactga	tggtgtttgt	ttgttttgga	1020
attgtaacgt	tgactggtac	ccagccaatg	caattgtgtg	taggtttgac	acaagagtct	1080
tgtcaaaactt	gaactttacca	ggctgtgatg	gtggtagtgt	gtatgtgaat	aagcatgcac	1140
tccacactcc	agctttcgat	aaaagtgcac	ttactaattt	aaagcaattg	cctttctttt	1200
actattctga	tagtccttgt	gagtcctcat	gcaaacaagt	agtgtcggat	attgattatg	1260
ttccactcaa	atctgctacg	tgtattacac	gatgcaattt	agggtgtgct	gtttgcagac	1320
accatgcaaa	tgagtactgg	cagtacttgg	atgcatataa	tatgatgatt	tctgctggat	1380
ttagcctatg	gatttacaaa	caatttgata	cttataacct	gtggaatata	tttaccaggt	1440
tacagagttt	agaaaatgtg	gcttataaat	ttgttaataa	aggacacttt	gatggacacg	1500
ccggcgaagc	acctgtttcc	atcattaata	atgctgttta	cacaaaggta	gatgggtattg	1560
atgtggagat	ctttgaaaga	aagacaacac	ttctctgtta	tggtgcattt	gagctttggg	1620
ctaagcgtaa	cattaaacca	gtgccagaga	ttaagatact	caataatttg	gggtgttgata	1680
tcgctgctaa	tactgtaatc	tgggactaca	aaagagaagc	cccagcacat	gtatctacaa	1740
taggtgtctg	cacaatgact	gacattgcc	agaaacctac	tgagagtgtc	tggtcttcac	1800
ttactgtctt	gtttgatggg	agagtggaa	gacaggtaga	cctttttaga	aacgcccgt	1860
atggtgtttt	aataacagaa	ggttcagta	aagggttaac	accttcaaag	ggaccagcac	1920
aagctagcgt	caatggagtc	acattaattg	gagaatcagt	aaaaacacag	tttaactact	1980
ttaagaaagt	agacggcatt	attcaacagt	tgccgtgaa	ctactttact	cagagcagag	2040
acttagagga	ttttaagccc	agatcacaaa	tggaaactga	ctttctcgag	ctcgtatgg	2100
atgaattcat	acagcgatat	aagctcgagg	gctatgcctt	cgaacacatc	gtttatggag	2160
atttcagtca	tggaacaact	ggcggctctt	atttaatgat	aggcttagcc	aagcgctcac	2220
aagattcacc	acttaaat	gaggatttta	tccctatgga	cagcacagtg	aaaaattact	2280
tcataacaga	tgctgaaaga	ggttcaccaa	aatgtgtgtg	ttctgtgatt	gatcttttac	2340
ttgatgactt	tgctgagata	ataaagtcac	aagatttgtc	agtgaattca	aaagtgggtca	2400
aggttacaat	tgactatgct	gaaatttcat	tcagtctttg	gtgtaaggat	ggacatgttg	2460
aaaccttcta	cccaaaacta	caagcaagtc	aagcgtggca	accagggtgt	gcgatgccta	2520
acttaacaga	aactgctgta	atgtctcttg	aaaagtgtga	ccttcagaat	tatgggtgaaa	2580
atgctgttat	accaaagga	ataatgatga	atgtcgcata	gtatactcaa	ctgtgtcaat	2640
acttaaatat	acttacttta	gctgtaccct	acaacatgag	agttattcac	tttgggtgctg	2700
gctctgataa	aggagttgca	ccagggtacag	ctgtgctcag	acaatgggtg	ccaactggca	2760
cactatctgt	cttaatgact	cttctccga	tcgtctccga	cgagatttct	actttaattg	2820
gagactgtgc	aacagtacat	acggctaata	aatgggacct	tattattagc	gatattgtatg	2880
accctaggac	caaacatgtg	acaaaagaga	atgactctaa	agaagggttt	ttcacttatc	2940
tgtgtggatt	tataaagcaa	aaactagccc	tgggtgggtc	tatagctgta	aagataacag	3000
agcattcttg	gaatgctgac	ctttacaagc	ttatgggcca	tttctcatgg	tggacagctt	3060
ttgttacaaa	tgtaaatgca	tcattcatcg	aagcattttt	aattggggct	aactatcttg	3120
gcaagccgaa	ggaacaaatt	gatggctata	ccatgcatgc	taactacatt	ttctggagga	3180
acacaaatcc	tatccagttg	tcttcttatt	cactctttga	catgagcaaa	tttctcttta	3240
aattaagagg	aactgctgta	atgtctctta	aggagaatca	aatcaatgat	atgattttatt	3300
ctcttctgga	aaaaggtagg	cttatcatta	gagaaaacaa	cagagttgtg	gtttcaagtg	3360
atattcttgt	taacaactaa	acgaacatgt	ttattttctt	attatttctt	actctcacta	3420
gtggtagtga	ccttgaccgg	tgccaccatt	ttgatgatgt	tcaagctcct	aattacactc	3480
aacatacttc	atctatgagg	ggggtttact	atcctgatga	aatttttaga	tcagacactc	3540
tttatttaac	tcaggattta	tttcttccat	tttattctaa	tggtacaggg	tttcatacta	3600
ttaatcatat	gtttggcaac	cctgtcatat	cttttaagga	tggtattttat	tttgctgcca	3660
cagagaaatc	aaatgttgtc	cgtgggtggg	tttttggttc	taccatgaac	aacaagtcac	3720
agtcgggtgat	tattattaac	aattctacta	atgttgttat	acgagcatgt	aactttgaat	3780
tgtgtgacaa	ccctttcttt	gctgtttcta	aacccatggg	tacacagaca	catactatga	3840
tattcgataa	tgcatttaat	tgactttctg	agtacataat	tgatgccttt	tcgcttgatg	3900
tttcagaaaa	gtcaggtaat	tttaaacact	tacgagagtt	tgtgtttaaa	aataaagatg	3960
ggtttctcta	gttttataag	ggctatcaac	ctatagatgt	agttcgtgat	ctaccttctg	4020
gttttaacac	tttgaaacct	atttttaagt	tgcccttctg	tattaacatt	acaaatttta	4080
gagccattct	tacagccttt	tcacctgctc	aagacatttg	gggcacgtca	gctgcagcct	4140

SEQLIST-20480.TXT

atthttgttg	ctattttaag	ccaactacat	ttatgtctca	gtatgatgaa	aatggtacaa	4200
tcacagatgc	tgthgtattg	tctcaaaatc	cacttgctga	actcaaatgc	tctgttaaga	4260
gcttttgagat	tgacaaagga	atthaccaga	cctctaattt	caggggtgtt	ccctcaggag	4320
atgtttgtgag	attccctaatt	attacaaact	tgthgtcctt	tggagaggtt	tttaattgcta	4380
ctaaattccc	ttctgtctat	gcattgggaga	gaaaaaaaat	ttctaattgt	gttgctgatt	4440
actctgtgct	ctacaactca	acattttttt	caacctttta	gtgctatggc	gtttctgcca	4500
ctaagttgaa	tgatctttgc	ttctccaatg	tctatgcaga	ttcttttgta	gtcaagggag	4560
atgatgtaag	acaaatagcg	ccaggacaaa	ctgggtgtat	tgctgattat	aattataaat	4620
tgccagatga	tttcatgggt	tgthgtcctt	cttggaaatac	taggaacatt	gatgctactt	4680
caactggtaa	ttataattat	aaatataggt	atcttagaca	tggcaagctt	aggccctttg	4740
agagagacat	atctaattgt	cctttctccc	ctgatggcaa	accttgcacc	ccacctgctc	4800
ttaatgttta	ttggccatta	aatgattatg	gttttttacac	cactactggc	attggctacc	4860
aacctttacag	agthgtatga	cctttctttt	aactttttaa	tgcaccggcc	acggttttgt	4920
gaccaaattt	atccactgac	cttattaaga	accagtgtgt	caattttaat	tttaattggac	4980
tcactgggtac	tgggtgtgta	actccttctt	caaagagatt	tcaaccattt	caacaatttg	5040
gccgtgatgt	ttctgatttc	actgattccg	ttcgagatcc	taaaacatct	gaaatattag	5100
acattttcacc	ttgtcttttt	gggggtgtta	gtgtgaattac	acctggaaca	aatgcttcat	5160
ctgaagttgc	tgthctatat	caagatgtta	actgcactga	tgthttctaca	gcaattcatg	5220
cagatcaact	cacaccagct	tggcgcatat	attctactgg	aaacaatgta	ttccagactc	5280
aagcaggctg	tcttatagga	gctgagcatg	tcgacacttc	ttatgagtgc	gacatttcta	5340
ttggagctgg	catthgtgct	agttaccata	cagthtcttt	attacgtagt	actagccaaa	5400
aatctattgt	ggcttatact	atgtctttag	gtgctgatag	ttcaattgct	tactctaata	5460
acaccattgc	tatacctact	aacttttcaa	ttagcattac	tacagaagta	atgcctgttt	5520
ctatggctaa	aacctccgta	gattgtaata	tgtaacatct	cggagattct	actgaatgtg	5580
ctaatthgtct	ttctcaatat	ggtagctttt	gcacacaact	aaatcgtgca	ctctcaggta	5640
ttgctgtctga	acaggatcgc	aacacacgtg	aagtgttcgc	tcaagtcaaa	caaattgtaca	5700
aaaccccaac	tttgaaatat	tttggtggtt	ttaatthttc	acaaatatta	cctgaccctc	5760
taaagccaac	taagaggtct	tttattgagg	acttgctctt	taataagggtg	acactcgctg	5820
atgttggtct	catgaagcaa	tatggcgaat	gcttaggtga	tattaatgct	agagatctca	5880
tttgtgcgca	gaagtccaat	ggacttaacg	tgthgtccac	tctgctcact	gatgatatga	5940
ttgtgcctta	cactgctgct	ctagtttagt	gtactgccac	tgctggatgg	acatttggtg	6000
ctggcgctgc	tcttcaataa	cctthtgcta	tgcaaatggc	atataggttc	aatggcattg	6060
gagcttaccga	aaatgttctc	tatgagaacc	aaaaacaata	cgccaacca	tttaacaagg	6120
cgattagtca	aattcaagaa	tcacttaca	caacatcaac	tgcatthggc	aagctgcaag	6180
acgttggttaa	ccagaatgct	caagcattaa	acacacttgt	taaacaactt	agctctaatt	6240
ttggtgcaat	ttcaagtgtg	ctaaatgata	tcctthtcgcg	acttgataaa	gtcgaggcgg	6300
aggtatcaaat	attacaggta	gactthcaaa	gactthcaaa	ccttcaaac	tatgtaaac	6360
aacaactaat	cagggtctgct	gaaatcaggg	cttctgctaa	tcttgctgct	actaaaatgt	6420
ctgagtgtgt	tcttggaaca	tcaaaaagag	ttgactthttg	tggaaaagggc	taccacctta	6480
tgthcttccc	acaagcagcg	ccgcatgggtg	ttgtcttctt	acatgtcacg	tatgtgccat	6540
cccaggagag	aaacttccac	acagcgccag	gactthgtca	tgaaggcaaa	gcatacttcc	6600
ctcgtgaagg	tgthttttgtg	tttaattggca	cttcttggtt	tattacacag	aggaacttct	6660
tttctccaca	aataattact	acagacaata	catttgctctc	aggaaattgt	gatgtcggtta	6720
ttggcatcat	taacaacaca	gtthtatgatc	ctctgcaacc	tgagcttgac	tcattcaaat	6780
aagagcttga	caagtacttc	aaaaatcata	catcaccaga	tgthgatttt	ggcgacattt	6840
caggcatttaa	cgcttctgtc	gtcaacattc	aaaaagaaaat	tgaccgcctc	aatgagggtcg	6900
ctaaaaattt	aaatgaatca	ctcattgacc	ttcaagaatt	gggaaaatat	gagcaatata	6960
ttaaatggcc	ttggtatgtt	tggtctggct	tcattgctgg	actaatggcc	atcgctcatgg	7020
ttacaattctt	gctthgttgc	atgactagtt	gtthgcagttg	cctcaagggt	gcathgctctt	7080
gtggtthctt	ctgcaagttt	gatgaggatg	actctgagcc	agthctcaag	gggtgtcaaat	7140
tacattacac	ataaacgaac	ttatggattt	gtthtatgaga	ttthttactc	ttggatcaat	7200
tactgcacag	ccagtaaaaa	ttgacaatgc	ttctcctgca	agtactgttc	atgctacagc	7260
aacgataccg	ctacaagcct	cactcccttt	cggatggctt	gtthattggcg	ttgcatttct	7320
tgctgtthttt	cagagcgcta	ccaaaataat	tgctgctcaat	aaaagatggc	agctagccct	7380
ttataagggc	ttccagttca	tttgcaattt	actgctgcta	tttgttacca	tctattcaca	7440
tctthttgctt	gtcgctgcag	gtatggaggc	gcaattthttg	tacctctatg	ccttgatata	7500
ttthttacaa	tgcatcaacg	catgtagaat	tattatgaga	tgthggcttt	gttggaagtg	7560
caaattccaag	aaccttattc	tttatgatgc	caactacttt	gtthgctggc	acacacataa	7620
ctatgactac	tgtataccat	ataacagtgt	cacagataca	attgtcggtta	ctgaagggtga	7680
cggcattttca	acaccaaact	tcaaaagaga	ctaccaaatt	gggtggttatt	ctgaggatag	7740
gcactcaggt	gttaagagct	atgtcgthgt	acatggctat	ttcaccgaag	tttactacca	7800
gcttgagthct	acacaaatta	ctacagacac	tggtattgaa	aatgctacat	tcttcatctt	7860
taacaagctt	gttaagacc	caccgaatgt	gcaaatacac	acaatcgacg	gctcttcagg	7920

SEQLIST-20480.TXT

agtttgcta	ccagcaatg	atccaattta	tgatgagccg	acgacgacta	ctagcgtgcc	7980
tttgtaagca	caagaaagt	agtacgaact	tatgtactca	ttcgtttcgg	aagaaacagg	8040
tacgttaata	gttaatagcg	tacttctttt	tcttgctttc	gtgggtattct	tgctagtcac	8100
actagccatc	cttactgcgc	ttcgattgtg	tgcgtactgc	tgcaatattg	ttaacgtgag	8160
tttagtaaaa	ccaacgggtt	acgtctactc	gcgtgttaaa	aatctgaact	cttctgaagg	8220
agttcctgat	cttctgggtc	aaacgaacta	actattatta	ttattctgtt	tggaacttta	8280
acattgctta	tcattggcaga	caacgggtact	attaccgttg	aggagcttaa	acaactcctg	8340
gaacaatgga	acctagtaat	aggtttccta	ttcctagcct	ggattatgtt	actacaattt	8400
gcctattcta	atcggaacag	gtttttgtac	ataataaagc	ttgttttcct	ctggctcttg	8460
tgccagta	cacttgcttg	ttttgtgctt	gctgtgtctt	acagaattaa	ttgggtgact	8520
ggcgggattg	cgattgcaat	ggcttgattt	gtaggcttga	tggtggcttag	ctacttcggt	8580
gcttctttca	ggctgtttgc	tcgtacccgc	tcaatgtggt	cattcaaccc	agaaacaaac	8640
atgtctctca	atgtggaact	ccgggggaca	attgtgcacca	gaccgctcat	cgaaagtga	8700
cttgctcattg	gtgctgtgat	cattcggtgt	cacttgcgaa	tgcccgga	ctccctagg	8760
cgctgtgaca	ttaggacctt	gccaaaagag	atcactgtgg	ctacatcacg	aacgctttct	8820
tattacaagt	taggagcgtc	gcagcgtgta	ggcactgatt	cagggtttgc	tgcatataac	8880
cgctgtgaca	ttgggaactt	ttaaattaaat	acagaccacg	ccggtagcaa	gcacaattat	8940
gctttgctag	tacagtaagt	gacaacagat	gtttcatctt	gttgacttcc	aggttacaat	9000
agcagagata	ttgattatca	ttatgaggac	tttcaggatt	gctatttgga	atcttgacgt	9060
tataataagt	tcaatagtga	gacaattatt	taagcctcta	actaagaaga	attattcggg	9120
gattgcttatt	gaagaacctt	tgaggttaga	ttatccataa	aacgaacatg	aaaattattc	9180
tcttcttgac	attgattgta	tttacctctt	gcgagctata	tcactatcag	gagtgtgtta	9240
gaggtacgac	tgtactacta	aaagaacctt	gcccatacagg	aacatacag	ggcaattcac	9300
catttcaccc	tcttgctgac	aataaatttg	cactaacttg	cactagcaca	cactttgctt	9360
ttgctttgtg	tgacgggtact	cgacataact	atcagctgag	tgcaagatca	gtttcaccaa	9420
aacttttcat	cagacaagag	gaggttcaac	aagagctcta	ctcgccactt	tttctcattg	9480
ttgctgctct	agtattttta	atactttgct	tcaccattaa	gagaaagaca	gaatgaatga	9540
gctcacttta	attgactttc	atttgtgctt	tttagccttt	ctgctattcc	ttgttttaat	9600
atgtctaaacg	aacatgaaac	ttctcattgt	tttgacttgt	atttctctat	gcagttgcat	9660
atgcactgta	gtacagcgtt	gtgcatctaa	taaacctcat	gtgcttgaag	atccttgtaa	9720
ggtacaacac	taggggtaat	acttatagca	ctgcttggtt	ttgtgctcta	ggaaagggtt	9780
tactctttca	agctgggtac	actatgggtc	acctaattgt	actatcaact	gaaggtcacc	9840
gtcaagatcc	agctgggtgt	gcgcttatag	ctaggtgttg	gtaccttcat	taaaatgtct	9900
aaactgctgc	atttagagac	gtacttggtg	ttttaaataa	acgaacaaat	tggaaccaca	9960
gataatggac	cccaatcaaa	ccaacgtagt	gccccccgca	ttacatttgg	tggaaccaca	10020
gattcaactg	caaaataacca	gaatggagga	cgcaatgggg	caaggccaaa	acagcgccga	10080
ccccaagggtt	tacccaataa	tattgctgct	tggttcacag	ctctcactca	gcattggcaag	10140
gaggaactta	gattccctcg	aggccagggtc	gttccaatca	acaccaatag	tggtccagat	10200
gaccaaaattg	gctactaccg	aagagctacc	cgacgagttc	gtgggtggtga	cggaacaaatg	10260
aaagactctca	gccccagatg	gtacttctat	tacttaggaa	ctggcccaga	agcttcactt	10320
ccctacggcg	ctaacaaga	aggcatcgta	tggttgcaa	ctgagggagc	cttgaatata	10380
cccaaagacc	acattggcac	ccgcaatcct	aataacaatg	ctgccaccgt	gctacaactt	10440
cctcaaggaa	caacattgcc	aaaaggcttc	tacgcagagg	gaagcagagg	cggcagtgaa	10500
gcctcttctc	gctcctcctc	acgtagtcgc	ggtaattcaa	gaaattcaac	tcctggcagc	10560
agtaggggaa	attctcctgc	tcgaatggct	agcggagggtg	gtgaaactgc	cctcgcgcta	10620
ttgctgctag	acagattgaa	ccagcttgag	agcaaaagttt	ctgggtaaagg	ccaacaacaa	10680
caaggccaaa	ctgtcactaa	gaaatctgct	gctgaggcat	ctaaaaagcc	tcgcaaaaaa	10740
cgactgcca	caaaacagta	caacgtcact	caagcatttg	ggagacgtgg	tccagaacaa	10800
acccaaggaa	atttcgggga	ccaagaccta	atcagacaag	gaactgatta	caaacatttg	10860
ccgcaaattg	cacaatttgc	tccaagtgc	tctgcattct	ttggaatgtc	acgcattggc	10920
atggaagtca	caccttcggg	aacatggctg	acttatcatg	gagccattaa	attggatgac	10980
aaagatccac	aattcaaaga	caacgtcata	ctgctgaaca	agcacattga	cgcatataaa	11040
acattccac	caacagagcc	taaaaaggac	aaaaagaaaa	agactgatga	agctcagcct	11100
ttgccgcaga	gacaaaagaa	gcagccact	gtgactcttc	ttcctgc		11160

<210> 11640  
 <211> 29725  
 <212> DNA  
 <213> SARS coronavirus

<400> 11640  
 ctaccaggga aaagccaacc aacctcgatc tctttagatg ctgttctcta aacgaacttt 60

SEQLIST-20480.TXT

aaaatctgtg	tagctgtcgc	tcggctgcat	gcctagtgc	cctacgcagt	ataaacaata	120
ataaatttta	ctgtcgttga	caagaaacga	gtaactcgtc	cctcttctgc	agactgctta	180
cggtttcgtc	cgtgttgacg	tcgatcatca	gcatacctag	gtttcgtccg	ggtgtgaccg	240
aaaggtaaga	tggagagcct	tgttcttggg	gtcaacgaga	aaacacacgt	ccaactcagt	300
ttgcctgtcc	ttcaggtttag	agacgtgcta	gtgctgtggc	tcggggactc	tgtggaagag	360
gccctatcgg	aggcacgtga	acacctcaaa	aatggcactt	gtggtctagt	agagctggaa	420
aaaggcgtag	tgccccagct	tgaacagccc	tatgtgttca	ttaaactgtc	tgatgcctta	480
agcaccaatc	acggccacaa	ggtcgttgag	ctggttgtag	aaatggacgg	cattcagtag	540
ggtcgtagcg	gtataacact	gggagtactc	gtgccacatg	tgggcgaaac	cccaattgca	600
taccgcaatg	ttcttcttcg	taagaacggg	aataaggagg	ccggtggtca	tagctatggc	660
atcgatctaa	agtcttatga	cttaggtgac	gagcttgcca	ctgatcccat	tgaagattat	720
gaacaaaact	ggaacactaa	gcatggcagt	ggtgcacttc	gtgaactcac	tcgtgagctc	780
aatggagggtg	cagtactcgc	ctatgtcgac	aacaatttct	gtggcccaga	tgggtaccct	840
cttgattgca	tcaaagattt	tctcgcacgc	gcgggcaagt	caatgtgcac	tctttccgaa	900
caacttgatt	acatcgagtc	gaagagaggt	gtctactgct	gccgtgacca	tgagcatgaa	960
attgcctggt	tacttgagcg	ctctgataag	agctacgagc	accagacacc	cttcgaaatt	1020
aagagtgtgga	agaaatttga	cactttcaaa	ggggaaatgcc	caaagtttgt	gtttcctctt	1080
aaactcaaaag	tcaaagtcac	tcaaccacgt	gttgaaaaga	aaaagactga	gggtttcatg	1140
gggcgtatac	gctctgtgta	ccctgttgca	tctccacagg	agtgtaacaa	tatgcacttg	1200
tctaccttga	tgaatgttaa	tcattgtagt	gaagtttcat	ggcagacgtg	cgactttctg	1260
aaagccacttt	gtgcaacttg	tggcactgaa	aatttagtta	ttgaaggacc	tactacatgt	1320
gggtacctac	ctactaatgc	tgtagtgaaa	atgccatgtc	ctgcctgtca	agaccagag	1380
attggacctg	agcatagtgt	tgcagattat	cacaaccact	caaacattga	aactcgactc	1440
cgcaaggagg	gtaggactag	atgttttgga	ggctgtgtgt	ttgcctatgt	tggctgctat	1500
aataagcggtg	ctactgggtg	tctcgtgct	agtgctgata	ttggctcagg	ccatactggc	1560
attactgggtg	acaatgttga	gaccttgaat	gaggatctcc	ttgagatact	gagtcgtgaa	1620
cgtgttaaca	ttaacattgt	tggcgatttt	catttgaatg	aagagggtgc	catcattttg	1680
gcattctttct	ctgcttctac	aagtgccttt	attgacacta	taaagagtct	tgattacaag	1740
tctttcaaaa	ccattgttga	gtcctgcggg	aactataaag	ttaccaaggg	aaagcccgta	1800
aaagggtgctt	ggaacattgg	acaacagaga	tcagttttaa	caccactgtg	tggttttccc	1860
tcacaggctg	ctgggtgttat	cagatcaatt	tttgcgcgca	cacttgatgc	agcaaaccac	1920
tcaattcctg	atttgcaaag	agcagctgtc	accatacttg	atgggtattc	tgaacagtca	1980
ttacgcttgg	tcgacgccct	ggtttatact	tcagacctgc	tcaccaacag	tgtcattatt	2040
atggcatatg	taactgggtg	tcttgtacaa	cagacttctc	agtgggtgtc	taatcttttg	2100
ggcactactg	ttgaaaaact	caggcctatc	tttgaatgga	ttgaggcgaa	acttagtgca	2160
ggagttgaat	ttctcaagga	tgcttgggag	attctcaaat	ttctcattac	aggtgttttt	2220
gacatcgtca	agggttcatt	acaggttgct	tcagataaca	tcaaggattg	tgtaaaatgc	2280
ttcattgatg	ttgttaacaa	ggcactcgaa	atgtgcattg	atcaagtcac	tatcgctggc	2340
gcaaagttgc	gatcactcaa	cttaggtgaa	gtcttcatcg	ctcaaagcaa	gggactttac	2400
cgtcagtgtg	tacgtggcaa	ggagcagctg	caactactca	tgcctcttaa	ggcaccaaaa	2460
gaagtaacct	ttcttgaagg	tgattcacat	gacacagtag	ttacctctga	ggaggttggt	2520
ctcaagaacg	gtgaactcga	aaactctgag	acgcccgttg	atagcttcac	aaatggagct	2580
atcgtttggca	caccagctcg	tgtaaatggc	ctcatgctct	tagagattaa	ggacaaagaa	2640
caatactcgc	cattgtctcc	tggtttactg	gctacaaaca	atgtctttcg	cttaaaaggg	2700
ggtgcaccaa	ttaaagggtg	aacctttgga	gaagatgagt	tttgggaagt	tcaaggttac	2760
agaatgtga	gaatcacatt	tgagcttgat	gaacgtgttg	acaaagtgtc	taatgaaaag	2820
tgctctgtct	acactgttga	atccggtacc	gaagttagct	agtttgcatg	tgtttagtag	2880
gaggctgttg	tgaagacttt	acaaccagtt	tctgatctcc	ttaccaacat	gggtattgat	2940
cttgatgagt	ggagtgtagc	tacattctac	ttatttgatg	atgctgggtg	agaaaacttt	3000
tcatcacgta	tgtattgttc	cttttaccct	ccagatgagg	agaagagga	cgatgcagag	3060
tgtgaggaag	aagaaattga	tgaaacctgt	gaacatgagt	acggtacaga	ggatgattat	3120
caaggctctc	ctctggaatt	tgggtgcctca	gctgaaacag	ttcgagttga	ggaagaagaa	3180
gaggaagact	ggctggatga	tactactgag	caatcacaga	ttgagccaga	accagaacct	3240
acacctgaag	aaccagttaa	tcagtttact	ggttattttaa	aacttactga	caatgttgcc	3300
attaaatgtg	ttgacatcgt	taaggaggca	caaagtgtca	atcctatggg	gattgtaaat	3360
gctgctaaca	tacacctgaa	acatggtggt	ggtgtagcag	gtgcactcaa	caaggcaacc	3420
aatggtgcca	tgcaaaagga	gagtgtatga	tacattaaag	taaatggccc	tcttacagta	3480
ggagggtctt	gtttgctttc	tggaacataat	cttgctaaga	agtgtctgca	tgttgttgga	3540
cctaacctaa	atgcagggtga	ggacatccag	cttcttaagg	cagcatatga	aaatttcaat	3600
tcacaggaca	tcttacttgc	accattgttg	tcagcaggca	tatttggtgc	taaaccactt	3660
cagctgtttac	aagtgtgcgt	gcagacgggt	cgtacacagg	tttatattgc	agtcaatgac	3720
aaagctcttt	atgagcaggt	tgtcatggat	tatcttgata	acctgaagcc	tagagtggaa	3780
gcacctaaac	aagaggagcc	accaaacaca	gaagattcca	aaactgagga	gaaatctgtc	3840

SEQLIST-20480.TXT

gtacagaagc	ctgtcgatgt	gaagccaaaa	athtaaggcct	gcattgatga	ggttaccaca	3900
acactggaag	aaactaagtt	tcttaccaat	aagttactct	tgtttgctga	tatcaatggt	3960
aagctttacc	atgattctca	gaacatgctt	agagggtgaag	atatgtcttt	ccttgagaag	4020
gatgcacctt	acatggttag	tgatgttatc	actagtgggtg	atatcacttg	tggtgtaata	4080
ccctccaaaa	aggctgggtg	cactactgag	atgctctcaa	gagctttgaa	gaaagtgccca	4140
gttgatgagt	atataaccac	gtaccctgga	caaggatgtg	ctgggtatac	acttgaggaa	4200
gctaagactg	ctcttaagaa	atgcaaatct	gcattttatg	tactaccttc	agaagcacct	4260
aatgctaagg	aagagattct	aggaactgta	tcctggaatt	tgagagaaat	gcttgctcat	4320
gctgaagaga	caagaaaatt	aatgcctata	tgcatggatg	ttagagccat	aatggcaacc	4380
atccaacgta	agtataaagg	aattaaaatt	caagagggca	tcgttgacta	tggtgtccga	4440
ttctttctttt	atactagtaa	agagcctgta	gcttctatta	ttacgaagct	gaactctcta	4500
aatgagccgc	ttgtcacaat	gccaatgggt	tatgtgacac	atgggtttta	tcttgaagag	4560
gctgcgctgt	ctatcgcttc	tcttaagctt	cctgccgtag	tgctcagtatc	atcaccagat	4620
gctgttacta	catataatgg	atacctcact	tcgtcatcaa	agacatctga	ggagcacttt	4680
gtagaaacag	tttctttggc	tggtctttac	agagattggt	cctattcagg	acagcgta	4740
gagtttaggtg	ttgaatttct	taagcgtgggt	gacaaaattg	tgtaccacac	tctggagagc	4800
ccgtgcgagt	cttgatttga	cggtgaggtt	ctttcacttg	acaaactaaa	gagtccttta	4860
tccctgcggtg	aggtttaagac	tataaaagt	ttcacaaactg	tggacaacac	taatctccac	4920
acacagcttg	tggatatgtc	tatgacatat	ggacagcagt	ttgggtccaac	atacttggat	4980
ggtgctgatg	ttacaaaaat	taaaccctcat	gtaaaatcatg	agggtaagac	tttctttgta	5040
ctagcttagtg	atgacacact	acgtagtgtt	gcttccagt	actaccatac	tcttgatgag	5100
agttttctttg	gtaggtacat	gtctgcttta	aaccacacaa	agaaatggaa	atttcctcaa	5160
gttggtggtt	taacttcaat	taaattgggt	gataacaatt	gttatttgct	tagtggttta	5220
ttagcacttc	aacagcttga	agtcaaatc	aatgcaccag	cacttcaaga	ggcttattat	5280
agagcccgtg	ctggtgattt	tgtaactttt	tgctcactca	tactcgctta	cagtaataaa	5340
actgtttggcg	agcttgggtg	tgctcagagaa	actatgaccc	atcttctaca	gcatgcta	5400
ttggaatctg	caaagcgagt	tcttaatgtg	gtgtgtaaac	attgtgggtca	gaaaactact	5460
accttaacgg	gtgtagaagc	tgatgatgat	atgggtactc	tatcttatga	taatcttaag	5520
acaggtgtgt	ccattccatg	tggtgtgtgt	cggtatgctt	cacaatatct	agtacaacaa	5580
gagtccttctt	ttgttatgat	gtctgcacca	cctgctgagt	ataaattaca	gcaagggtaca	5640
ttcttatgtg	cgaatgagta	cactggtaac	tatcagtgtg	gtcattacac	tcatataact	5700
gctaaggaga	ccctctatcg	tattgacgga	gctcacctta	caaagatgtc	agagtacaaa	5760
ggaccagtg	ctgatgtttg	ctacaaggga	ctacaacctt	ctacaacctt	caagcctgtg	5820
tcgtataaac	tcgatggagt	tacttacaca	gagattgaac	caaaatttga	tggttattat	5880
aaaaaggata	atgcttacta	tacagagcag	cctatagacc	ttgtaccaac	tcaaccatta	5940
ccaaatgcga	gttttgataa	tttcaaactc	acatgttcta	acacaaaatt	tgctgatgat	6000
ttaaatcaaa	taagatgctt	cacaaagcca	gcttcacgag	agctatctgt	cacattcttc	6060
ccagacttga	atggcgatgt	agtggctatt	gactatagac	actattcagc	gagtttcaag	6120
aaaggtgcta	aattactgca	taagccaatt	gtttggcaca	ttaccagggc	tacaaccaag	6180
acaacgttca	aaccaaaccac	ttgggtgttt	cggtgtcttt	ggagtacaaa	gccagtagat	6240
acttcaaagt	catttgattt	tctggcagta	gaagacacac	aagggaatgga	caatcttgct	6300
tgtgaaagtc	aacaaccac	ctctgaagaa	gtagtggaaa	atcctaccat	acagaaggaa	6360
gtcatagagt	gtgacgtgaa	aactaccgaa	gttgtaggca	atgtcatact	taaaccatca	6420
gatgaagggtg	ttaaagtaac	acaagagtta	ggtcatgagg	atcttatggc	tgcttatgtg	6480
gaaaacacaa	gcattaccat	taagaaacct	aatgagcttt	cactagcctt	aggtttaaaa	6540
acaattgccca	ctcatgggtat	tgctgcaatt	aatagtgttc	cttggagtaa	aattttggct	6600
tatgtcaaac	cattcttagg	acaagcagca	attacaacat	caaattgctg	taagagatta	6660
gcacaacgtg	tgtttaacaa	ttatatgcct	tatgtgttta	cattattggt	ccaatttgtt	6720
acttttacta	aaagtaccaa	ttctagaatt	agagcttcac	tacctacaac	tattgctaaa	6780
aatagtgtta	agagtgttgc	taaattatgt	ttggatgccg	gcattaatta	tgtgaagtca	6840
cccaaatttt	ctaaattgtt	cacaatcgct	atgtggctat	tggtgttaag	tatttgctta	6900
ggttctctaa	tctgtgtaac	tgctgctttt	ggtgtactct	tatctaat	tggtgctcct	6960
tcttattgta	atggcgtag	agaattgtat	cttaattcgt	ctaacgttac	tactatggat	7020
ttctgtgaag	gttcttttcc	ttgcagcatt	tgtttaagt	gattagactc	ccttgattct	7080
tatccagctc	ttgaaaccat	tcagggtgacg	atttcatcgt	acaagctaga	cttgacaatt	7140
ttaggctctg	ccgctgagtg	ggttttggca	tatatgttgt	tcacaaaatt	cttttattta	7200
ttaggctctt	cagctataat	gcagggtgtc	tttggctatt	ttgctagtca	tttcatcagc	7260
aattcttggc	tcattgtggtt	tatcattagt	attgtacaaa	tggcaccctg	ttctgcaatg	7320
gttaggatgt	acatcttctt	tgcttctttc	tactacatat	ggaagagcta	tggtcatatc	7380
atggatggtt	gcacctcttc	gacttgcagt	atgtgctata	agcgcaatcg	tgccacacgc	7440
gttaggtgta	caactatgtg	taattggcat	aagagatctt	tctatgtcta	tgcaaatgga	7500
ggccgtggct	tctgcaagac	tcacaattgg	aattgtctca	attgtgacac	attttgcact	7560
ggtagtacat	tcattagtga	tgaagtgtct	cgtgatttgt	cactccagtt	taaaagacca	7620

SEQLIST-20480.TXT

atcaacccta	ctgaccagtc	atcgtatatt	gttgatagtg	ttgctgtgaa	aaatggcgcg	7680
cttcacctct	actttgacaa	ggctgggtcaa	aagacctatg	agagacatcc	gctctcccat	7740
tttgtcaatt	tagacaattt	gagagctaac	aacactaaag	gttactgccc	tattaatgtc	7800
atagtttttg	atggcaagtc	caaatgcgac	gagctgtgct	ctaagctctgc	ttctgtgtac	7860
tacagtgcagc	tgatgtgcca	acctattctg	ttgcttgacc	aagctcttgt	atcagacggt	7920
ggagatagta	ctgaagtttc	cgtaagatg	tttgatgctt	atgtcgacac	cttttcagca	7980
acttttagtg	ttcctatgga	aaaacttaag	gcacttggtg	ctacagctca	cagcgagtta	8040
gcaaaggggtg	tagcttttaga	tggtgtcctt	tctacattcg	tgtagctgc	ccgacaaggt	8100
gttggtgata	ccgatgttga	cacaaaggat	gttattgaat	gtctcaaact	ttcacatcac	8160
tctgacttag	aagtgcaggg	tgacagttgt	aacaatttca	tgctcaccta	taataaggtt	8220
gaaaacatga	cgcccagaga	tcttggcgca	tgtattgact	gtaatgcaag	gcatatcaat	8280
gcccacagtag	caaaaagtca	caatgtttca	ctcatctgga	atgtaaaaga	ctacatgtct	8340
ttatctgaac	agctgcgtaa	acaaattcgt	gttcttgcca	agaagaacaa	catactttt	8400
agactaactt	gtgctacaac	tagacaggtt	gtcaatgtca	taactactaa	aatctcactc	8460
aaggggtggtg	agattgttag	tacttgtttt	aaacttatgc	ttaaggccac	attattgtgc	8520
gttcttgctg	cattggtttg	ttatatcggt	atgccagtag	atacattgtc	aatccatgat	8580
ggttacacaa	ttcctaactac	tggttacaaa	gccttgagg	atgggtgtac	tcgtgacatc	8640
atttctactg	atgattgttt	tgcaataaaa	catgctgggt	ttgacgcatg	gttttagccag	8700
cgtgggtggtt	catacaaaaa	tgacaaaagc	tgccctgtag	tagctgctat	cattacaaga	8760
gagattgggtt	tcatagtggc	tggtttaccg	ggtactgtgc	tgagagcaat	caatgggtgac	8820
ttcttgctatt	ttcctactcg	tggttttagt	gctgttgcca	acatttgcta	cacaccttcc	8880
aaactcattg	agtatagtga	ttttgctacc	tctgcttgcg	ttcttgctgc	tgagtgtaca	8940
atttttaagg	atgctatggg	caaacctgtg	ccatattggt	atgacactaa	tttgctagag	9000
ggttctattt	cttatagtga	gcttcgtcca	gacactcggt	atgtgcttat	ggatgggttc	9060
atcacacagt	ttcctaactac	ttacctggag	ggttcttgta	gagtagtaac	aacttttgat	9120
gctgagtagt	gtagacatgg	tacatgcgaa	aggtcagaag	taggtatttg	cctatctacc	9180
agtggtagat	gggttcttaa	taatgagcat	tacagagctc	tatcaggagt	tttctgtggt	9240
tttgatgcga	tgaatctcat	agctaacatc	tttactcctc	ttgtgcaacc	tgtgggtgct	9300
gttagatgagt	ctgcttcagt	agtggctggt	ggattatttg	ccatattggt	gacttggtgc	9360
gcctactact	ttatgaaatt	cagacgtggt	tttggtgagt	acaaccatgt	tggtgtgctc	9420
aatgcacttt	tggttttgat	gtctttcact	atactctgtc	tggtaccagc	ttacagcttt	9480
ctgccgggag	tctactcagt	cttttacttg	tacttgacat	tctattttcac	caatgatggt	9540
tcattcttggt	atgggttgca	atgggttggt	tatttctctg	ctattgtgccc	tttttgata	9600
acagcaatct	atgtattctg	tatttctctg	aagcactgcc	attggttctt	taacaactat	9660
cttaggaaaa	gagtcagtgt	taatggagtt	acatttagta	ccttcgagga	ggctgctttg	9720
tgtacctttt	tgctcaacaa	ggaaatgtac	ctaaaattgc	gtagcgagac	actgttgcca	9780
cttacacagt	ataaacgtga	tcttgctcta	tataacaagt	acaagtattt	cagtggagcc	9840
ttagatacta	ccagctatcg	tgaagcagct	tgctgccact	tagcaaaaggc	tctaaatgac	9900
tttagcaact	caggtgctga	tgttctctac	caaccaccac	agacatcaat	cacttctgct	9960
gttctgcaga	gtgggttttag	gaaaatggca	ttcccgtcag	gcaaagttga	aggggtgcatg	10020
gttacaagaa	cctgtggaac	tacaactctt	aatggattgt	gggtggatga	cacagtatac	10080
tgtccaagac	atgtcatttg	cacagcagaa	gacatgctta	atcctaacta	tgaagatctg	10140
ctcattcgca	aatccaacca	tagctttctt	gttcaggctg	gcaatgttca	acttcgtggt	10200
attggccatt	ctatgcaaaa	ttgtctgctt	aggcttaaa	ttgatacttc	taaccctaag	10260
acacccaagt	ataaatttgt	ccgtatccaa	cctggtcaaa	cattttcagt	tctagcatgc	10320
tacaatgggt	caccatctgg	tgtttatcag	tggtccatga	gacctaatca	taccattaaa	10380
ggttctttcc	ttaatggatc	atgtggtagt	gttggtttta	acattgatta	tgattgctgt	10440
tctttctgct	atatgcatca	tatggagctt	ccaacaggag	tacacgctgg	tactgactta	10500
gaaggtaaat	tctatgggtc	atttggtgac	agacaaaactg	cacaggctgc	aggtacagac	10560
acaaccataa	cattaaatgt	tttggcatgg	ctgtatgctg	ctgttatcaa	tggtgatagg	10620
tggtttctta	atagattcac	cactactttg	aatgacttta	accttggtggc	aatgaagtac	10680
aactatgaac	ctttgacaca	agatcatggt	gacatattgg	gacctctttc	tgctcaaaca	10740
ggaattggcg	tcttagatat	gtgtgctgct	ttgaaagagc	tgctgcagaa	tggtatgaat	10800
ggctgtacta	tccttggtag	cactatttta	gaagatgagt	ttacaccatt	tgatgttggt	10860
agacaatgct	ctgggtgttac	cttccaagg	aagttcaaga	aaattgttaa	gggcactcat	10920
cattggatgc	ttttaacttt	cttgacatca	ctattgatct	ttgttcaaag	tacacagtgg	10980
tcactgtttt	tctttgttta	cgagaatgct	ttcttgccat	ttactcttgg	tattatggca	11040
attgctgcat	gtgctatgct	gcttggttaa	cataagcacg	cattcttctg	cttgtttctg	11100
ttaccttctc	ttgcaacagt	tgcttacttt	aatatgggtc	acatgcctgc	tagctgggtg	11160
atgcgtatca	tgacatggct	tgaattggct	gacactagct	tgtctgggtg	taggcttaag	11220
gattgtgtta	agcttttagt	tgcttttagt	ttgcttattc	tcacagacag	tcgcactggt	11280
tatgatgatg	ctgctagacg	tggtttggaca	ctgatgaatg	tcattacact	tggtttacaaa	11340
gtctactatg	gtaatgcttt	agatcaagct	atttccatgt	gggccttagt	tatttctgta	11400



SEQLIST-20480.TXT

acctctaact	attctggtgt	cgttacgact	attatgtttt	tagctagagc	tatagtgttt	11460
gtgtgtgttg	agtattaccc	attgttattt	attactggca	acaccttaca	gtgtatcatg	11520
cttgtttatt	gtttcttagg	ctattgtttg	tgctgctact	ttggcctttt	ctgttttactc	11580
aaccggtact	tcaggcttac	tccttggtgt	tatgactact	tggctctctac	acaagaattt	11640
aggatatatga	actcccagg	gcttttgcct	cctaagagta	gtattgatgc	tttcaagctt	11700
aacattaagt	tggtgggtat	tggaggtaaa	ccatgtatca	aggttgctac	tgtacagtct	11760
aaaatgtctg	acgtaaagt	cacatctgtg	gtactgctct	cggttcttca	acaacttaga	11820
gtagagtcatt	cttctaaatt	gtgggcacaa	tgtgtacaac	tccacaatga	tattcttctt	11880
gcaaaagaca	caactgaagc	tttcgagaag	atggtttctc	ttttgtctgt	tttgctatcc	11940
atgcagggtg	ctgtagacat	taataggttg	tgcgaggaaa	tgctcgataa	ccgtgctact	12000
cttcaggcta	ttgcttcaga	atthagttct	ttaccatcat	atgccgctta	tgccactgcc	12060
caggaggcct	atgagcaggc	tgtagctaatt	ggtgattctg	aagtcgttct	caaaaagtta	12120
aagaaatctt	tgagtgaagt	ttaaactgtag	ttgagctgtg	atgctgccat	gcaacgcaag	12180
ttggaaaaga	tggcagatca	ggctatgacc	caaagtatac	aacaggcaag	atctgaggac	12240
aagagggcaa	aagtaactag	tgctatgcaa	acaatgctct	tcactatgct	taggaagctt	12300
gataatgatg	cacttaacaa	cattatcaac	aatgcgcgtg	atggttggtg	tccactcaac	12360
atcatacatg	agccaaactc	agccaaactc	atggtttctg	tccctgatta	tggtagctac	12420
aagaacactt	gtgatggtta	cacctttaca	tatgcatctg	cactctggga	aatccagcaa	12480
gttgttgatg	cggatagcaa	gattgttcaa	cttagtgaaa	ttaacatgga	caattcacca	12540
aattttggctt	ggcctcttat	gtttacagct	ctaagagcca	actcagctgt	taaactacag	12600
aataatgtaac	tgagtagggc	agcactacga	cagatgttct	gtgcggctgg	taccacacaa	12660
acagcttgta	ctgatgacaa	tgcaactggc	tactataaca	attcgaaggg	aggtaggttt	12720
gtgctggcat	tactatcaga	ccaccaagat	ctcaaatggg	ctagattccc	taagagtgat	12780
ggtagcagga	caattttacac	agaactggaa	ccaccttgta	ggtttgttac	agacacacca	12840
aaagggccta	aagtgaacta	cttgtaactt	atcaaaaggt	taaacaacct	aaatagaggt	12900
atggtgctgg	gcagtttagc	tgctacagta	cgtcttcagg	ctggaaatgc	tacagaagta	12960
cctgccaat	caactgtgct	ttccttctgt	gcttttgca	tagaccctgc	taaagcatat	13020
aaggattacc	tagcaagtgg	aggacaacca	atcaccaact	gtgtgaagat	gttgtgtaca	13080
actttgtagt	taagagcgat	aattactgta	acaccagaag	ctaacatgga	ccaagagtcc	13140
tttgggtggtg	cttcatgttg	tctgtattgt	agatgccaca	ttgaccatcc	aaatcctaaa	13200
ggattctgtg	acttgaaagg	taagtacgtc	caaataccta	ccacttgctg	taatgaccca	13260
tggggtttta	cacttagaaa	cacagtctgt	accgtctgcg	gaatgtggaa	aggttatggc	13320
tgtagtgtg	tgtagtccg	cgaacccttg	cgaacccttg	cggatgcatc	acggttttta	13380
aacgggtttg	cgggtgaagt	gcagcccgtc	ttacaccgtg	cggcacaggc	actagtactg	13440
atgtcgtcta	cagggctttt	gatattttaca	acgaaaaagt	tgctgggttt	gcaaagttcc	13500
taaaaaactaa	ttgctgtcgc	ttccaggaga	aggatgagga	aggcaattta	ttagactctt	13560
actttgtagt	taagtagcgc	actatgtcta	actaccaaca	tgaagagact	atttataact	13620
tgggttaaaga	ttgtccagcg	gttgctgtcc	atgacttttt	caagtttaga	gtagatgggtg	13680
acatggtacc	acatatatca	cgtcagcgtc	taactaaata	cacaatggct	gatttagtct	13740
atgctctacg	tcattttgat	gagggtaatt	gtgatacatt	aaaagaaata	ctcgtcacat	13800
acaattgtgt	tatttcatga	tatttcaata	agaagatttg	gtatgacttc	gtagagaatc	13860
ctgacatctt	acgcgtatat	gctaacttag	gtgagcgtgt	acgccaatca	ttattaaaga	13920
ctgtacaatt	ctgcgatgct	atgcgtgatg	caggcattgt	aggcgtactg	acattagata	13980
atcaggatct	taatgggaac	tggtagcatt	tcgggtgattt	cgtacaagta	gcaccaggct	14040
gcggagtccc	tattgtggat	tcataattact	cattgctgat	gccccatcctc	actttgacta	14100
gggcattggc	tgctgagtcc	catatggatg	ctgatctcgc	aaaaccactt	attaagtggg	14160
atttgctgaa	atatgatattt	acggaagaga	gactttgtct	cttcgaccgt	tatttttaaat	14220
attggggacca	gacataccat	cccaattgta	tttaactgtt	ggatgatagg	tgtatccttc	14280
atttgtcaaa	ctttaatgtg	ttattttcta	ctgtgtttcc	acctacaagt	tttggaccac	14340
tagtaagaaa	aatattttgta	gatgggtgtt	cttttgttgt	ttcaactgga	taccattttc	14400
gtgagtttag	agtcgtacat	aatcaggatg	taaacttaca	tagctcgcgt	ctcagtttca	14460
aggaactttt	agtgtatgct	gctgatccag	ctatgcatgc	agcttctggc	aattttattgc	14520
tagataaacg	cactacatgc	ttttcagtag	ctgcactaac	aaacaatggt	gcttttcaaa	14580
ctgtcaaacc	cggtaatttt	aataaagact	tttatgactt	tgctgtgtct	aaagggtttct	14640
ttaaggaagg	aagttctggt	gaactaaaac	acttcttctt	tgctcaggat	ggcaacgctg	14700
ctatcagtga	ttatgactat	tatcgttata	atctgccaac	aatgtgtgat	atcagacaac	14760
tcctattctg	agttgaagtt	gttgataaat	actttgattg	ttacgatggg	ggctgtatta	14820
atgccaaacca	agtaatcggt	aacaatctgg	ataaatcagc	tggtttccca	tttaataaat	14880
ggggtaaggc	tagactttat	tatgactcaa	tgagttatga	ggatcaagat	gcacttttcg	14940
cgtataactaa	gcgtaatgtc	atccctacta	taactcaaat	gaatcttaag	tatgccatta	15000
gtgcaaaaga	tagagctcgc	accgtagctg	gtgtctctat	ctgtagtact	atgacaaata	15060
gacagtttca	tcagaaatta	ttgaagtcaa	tagccgccac	tagaggagct	actgtggtta	15120
ttggaacaag	caagttttac	ggtggctggc	ataatatggt	aaaaactggt	tacagtgatg	15180



SEQLIST-20480.TXT

tagaaactcc	acaccttatg	ggttgggatt	atccaaaatg	tgacagagcc	atgcctaaca	15240
tgcttaggat	aatggcctct	cttgttcttg	ctcgcacaac	taacacttgc	tgtaacttat	15300
cacaccgttt	ctacagggtta	gctaacgagt	gtgcgcaagt	attaagttag	atgggtcatgt	15360
gtggcgggctc	actatatgtt	aaaccagggtg	gaacatcac	cgggtgatgct	acaactgctt	15420
atgctaataag	tgtctttaac	atttgtcaag	ctgtttacag	caatgtaaat	gcacttcttt	15480
caactgatgg	taataagata	gctgacaagt	atgtccgcaa	tctacaacac	aggctctatg	15540
agtgtctcta	tagaaatagg	gatgttgatc	atgaattcgt	ggatgagttt	tacgtttacc	15600
tgcgtaaaaca	tttctccatg	atgattcttt	ctgatgatgc	cgttggtgtgc	tataacagta	15660
actatgcggc	tcaagggttt	gtagctagca	ttaagaactt	taaggcagtt	ctttattatc	15720
aaaataatgt	gttcatgtct	gaggcaaaat	gttggactga	gactgacctt	actaaaggac	15780
ctcacgaatt	ttgctcacag	catacaatgc	tagttaaaca	aggagatgat	tacgtgtacc	15840
tgctttaccc	agatccatca	agaatattag	gctgaggctg	ttttgtcgat	gatattgtca	15900
aaacagatgg	tacacttatg	attgaaaggt	tcgtgtcact	ggctattgat	gcttaccac	15960
ttacaaaaca	tcctaattcag	gagtatgctg	atgtctttca	cttgatttta	caatacatta	16020
gaaagttaca	tgatgagctt	actggccaca	tggtggacat	gtattccgta	atgctaacta	16080
atgataacac	ctcacgggtac	tgggaaacctg	agtttttatga	ggctatgtac	acaccacata	16140
cagctcttgca	ggctgtaggt	gcttgtgtat	tggtcaattc	acagacttca	cttcgttgcg	16200
gtgcctgtat	taggagacca	ttcctatggt	gcaagtctg	ctatgaccat	gtcatttcaa	16260
catcacacaa	attagtgttg	tctgttaatc	cctatgtttg	caatgcccc	ggttgtgatg	16320
tcactgatgt	gacacaactg	tatctaggag	gtatgagcta	ttattgcaag	tcacataagc	16380
ctcccatttag	ttttccatta	tggtctaattg	gtcagggttt	tggtttatac	aaaaacacat	16440
gtgtaggcag	tgtctttact	actgacttca	atgctaatagc	aacatgtgat	tggactaatg	16500
ctggcgatta	catacttgcc	aacacttgta	ctgagagact	caagcttttc	gcagcagaaa	16560
cgctcaaagc	cactgaggaa	acatttaagc	tgctcatatgg	tattgccact	gtacgcgaag	16620
tactctctga	cagagaattg	catctttcat	gggaggttgg	aaaacctaga	ccaccattga	16680
acagaaacta	tgtctttact	ggttaccgtg	taacttaaaa	tagtaaaagta	cagattggag	16740
agtacacctt	tgaaaaaggt	gactatgggt	atgctgttgt	gtacagaggt	actacgacat	16800
acaagttgaa	tggttggtgat	tactttgtgt	tgacatctca	cactgtaatg	ccacttagtg	16860
cacctactct	agtgccacaa	gagcactatg	tgagaattac	tggttggtac	ccaacactca	16920
acatctcaga	tgagttttct	agcaatgttg	caaattatca	aaaggctcgg	atgcaaaagt	16980
actctacact	ccaaggacca	cctgggtactg	gtaagagtca	ttttgccatc	ggacttgctc	17040
tctattaccc	atctgtctgc	atagtgtata	cggtatgctc	tcattgcagct	gttgatgccc	17100
tatgtgcaaa	ggcattaaaa	tatttgccca	tagataaatg	tagtagaatc	atacctgcgc	17160
gtgcgcaggt	agagttttct	gataaattca	aagtgaattc	aacactagaa	cagtatgttt	17220
tctgcactgt	aaatgcattg	ccagaaacaa	ctgctgacat	tgtagtcttt	gatgaaatct	17280
ctatggctac	taattatgac	ttgagtgttg	tcaatgctag	acttcgtgca	aaacactacg	17340
tctatatattg	cgatcctgct	caattaccag	ccccccgcac	attgctgact	aaaggcacac	17400
tagaaccaga	tgtattttct	tcagtgtgca	gacttttgaa	aacaataagg	ccagacatgt	17460
tccttggaac	ttgtcgccgt	tgctctgctg	aaattgttga	cactgtgagt	gcttttagttt	17520
atgacaataa	gctaaaagca	cacaaggata	agtcagctca	atgcttcaaa	atgttctaca	17580
aagggtttat	tacacatgat	gtttcatctg	caatcaacag	acctcaaata	ggcgttgtaa	17640
gagattttct	tacacgcaat	cctgcttgga	gaaaagctgt	ttttatctca	ccctataatt	17700
cacagaacgc	tgtagcttca	aaaatcttag	gattgcctac	gcagactgtt	gattcatcac	17760
agggttctga	atatgactat	gtcatattca	cacaaactac	tgaaacagca	cactcttgta	17820
atgtcaaccg	cttcaatgtg	gctatcacaa	gggcaaaaat	tggtattttg	tgcataatgt	17880
ctgatagaga	tctttatgac	aaactgcaat	ttacaagtct	agaaaatacca	cgctcgcaatg	17940
tggttacatt	acaagcagaa	aatgtaactg	gactttttta	ggactgtagt	aagatcatta	18000
ctggctcttca	tcctacacag	gcacctacac	acctcagcgt	tgatataaag	ttcaagactg	18060
aaggattatg	tggtgacata	ccaggcatac	caaaggacat	gacctaccgt	agactcatct	18120
ctatgatggg	tttcaaaatg	aattaccaag	tcaatgggtta	ccctaataatg	tttatcacc	18180
gcgaagaagc	tattcgtcac	gttcgtgctg	ggattggctt	tgatgtagag	ggctgtcatg	18240
caactagaga	tgctgtgggt	actaacctac	ctctccagct	aggattttct	acagggtgta	18300
acttagtagc	tgtaccgact	ggttatgttg	acactgaaaa	taacacagaa	ttcaccagag	18360
ttaatgcaaa	acctccacca	ggtgaccagt	ttaaaagctct	tataccactc	atgtataaag	18420
gcttgccctg	gaatgtagtg	cgtattaaga	tagtacaat	gctcagtgat	acactgaaag	18480
gattgtcaga	cagagtcgtg	ttcgtccttt	gggcgcagtg	ctttgagctt	acatcaatga	18540
agtactttgt	caagattgga	cctgaaagaa	cgtgtgtgtc	gtgtgacaaa	cgtgcaactt	18600
gcttttctac	ttcatcagat	acttatgcct	gctggaatca	ttctgtgggt	tttgactatg	18660
tctataaccc	atttatgatt	gatgttcagc	agtggggctt	tacgggtaac	cttcagagta	18720
accatgacca	acattgccag	gtacatggaa	atgcacatgt	ggctagttgt	gatgctatca	18780
tgactagatg	tttagcagtc	catgagtgct	ttgttaagcg	cgttgattgg	tctgttgaat	18840
accctattat	aggagatgaa	ctgagggtta	attctgtctg	cagaaaaagta	caacacatgg	18900
ttgtgaagtc	tgcattgctt	gctgataagt	ttccagttct	tcatgacata	ggaaatccaa	18960

SEQLIST-20480.TXT

aggctatcaa	gtgtgtgcct	caggctgaag	tagaatggaa	gttctacgat	gctcagccat	19020
gtagtgacaa	agcttacaaa	atagaggaac	tcttctattc	ttatgctata	catcacgata	19080
aattcactga	tggtgtttgt	ttgtttttgga	attgtaacgt	tgatcgttac	ccagccaatg	19140
caattgtgtg	taggtttgac	acaagagtct	tgtcaaactt	gaacttacca	ggctgtgatg	19200
gtggtagtgtt	gtatgtgaat	aagcatgcat	tccacactcc	agctttcgat	aaaagtgcag	19260
ttactaattt	aaagcaattg	cctttctttt	actattctga	tagtccttgt	gagtctcatg	19320
gcaaacaagt	agtgtcggat	attgattatg	ttccactcaa	atctgctacg	tgtattacac	19380
gatgcaattt	agggtgtgct	gtttgcagac	accatgcaaa	tgagtaccga	cagtacttgg	19440
atgcatataa	tatgatgatt	tctgctggat	ttagcctatg	gatttacaaa	caatttgata	19500
cttataacct	gtggaataca	tttaccaggt	tacagagttt	agaaaatgtg	gcttataatg	19560
ttgttaataa	aggacacttt	gatggacacg	ccggcgaagc	acctgtttcc	atcattaata	19620
atgctgttta	cacaaaggta	gatggatttg	atgtggagat	ccttgaaaaa	aagacaacac	19680
ttcctgttaa	tgcttctatt	gagccttggg	atgaacgtaa	cattaaacca	gtgccagaga	19740
ttaagatact	caataatttg	ggtgttgata	tcgctgctaa	tactgtaatc	tgggactaca	19800
aaagagaagc	cccagcacat	gtatctacaa	taggtgtctg	cacaatgact	gacattgcca	19860
agaaacctac	tgagagtgtc	tgttcttcac	ttactgtctt	gtttgatggg	agagtggaa	19920
gacagtgtag	ccttctgatt	aacgcccgcg	ttagctgttt	aataacagaa	ggttcagtc	19980
aaggctctaac	accttcaaag	ggaccagcac	aagctagcgt	caatggagtc	acattaattg	20040
gagaatcagt	aaaaacacag	tttaactact	ttaagaaagt	agacggcatt	attcaacagt	20100
tgcttgaaac	ctactttact	cagagcagag	acttagagga	ttttaagccc	agatcacaaa	20160
tggaaactga	ccttctcag	ctcgcctatg	acagcgatat	acagcgatat	aagctcgagg	20220
gctatgcctt	cgaacacatc	gtttatggag	atcttcagtc	tggaacaact	ggcggctctt	20280
atttaaatgat	aggcttagcc	aagcgcctac	aagattcacc	acttaaatta	gaggatttta	20340
tccctatgga	cagcacagt	aaaaattact	tcataacaga	tgcgcaaa	ggttcatcaa	20400
aatgtgtgtg	ttctgttatt	gatcctttac	tgctgagata	ataaagtcac	ataaagtcac	20460
aagattgtgc	agtgtttca	aaagtgggtc	aggttacaat	tgactatgct	gaaatttcat	20520
tcatgctttg	gtgtaaggat	ggacatgttg	aaaccttcta	cccaaaacta	caagcaagtc	20580
aagcgtggca	accaggtgtt	gcatgtccta	acttgtacaa	gatgcaaa	atgtctcttg	20640
aaaagtgtga	cttctcagaa	tatgggtgaa	tggtttacaa	accaaaagga	ataatgatga	20700
atgtcgcaaa	gtatactcaa	ctgtgtcaat	acttaataac	acttacttta	gctgtaccct	20760
acaacatgag	agttattcac	tttgggtgct	gctctgataa	aggagttgca	ccagggtacag	20820
ctgtgctcag	acaattggtg	ccaactggca	cactacttgt	cgattcagat	cttaatgact	20880
tcgcttccga	cgcagatgtt	actttaattg	gagactgtgc	aacagtcac	acggctaata	20940
aatgggacct	tattattagc	gatattgtat	accctaggac	caaacatgtg	acaaaagaga	21000
atgactctaa	agaagggttt	ttcacttatc	tggtgtggat	tataaagcaa	aaactagccc	21060
tggtgtgttc	tatagctgta	aagataacag	agcattcttg	gaatgctgac	ctttacaagc	21120
ttatgtggcca	tttctcaggg	tgacacagct	ttgtttacaa	tgtaaatgca	tcacatcgg	21180
aagcattttt	aattggggct	aactatcttg	gcaagccgaa	ggaacaaatt	gatggctata	21240
ccatgcatgc	taactacatt	ttctggagga	acacaaatcc	tatccagttg	tcttctctatt	21300
cactctttga	catgagcaaa	tttctcttta	aattaagagg	aactgctgta	atgtctctta	21360
aggagaatga	aatcaatgat	atgatttatt	ctcttctgga	aaaaggtagg	cttatcatta	21420
gagaaaacaa	cagagtgtgt	gtttcaagtg	atattcttgt	taacaactaa	acgaacatgt	21480
ttattttctt	attatttctt	actctcacta	gtggtagtga	ccttgaccgg	tgaccacttt	21540
ttgatgatgt	tcaagctcct	aattacactc	aacatacttc	atctatgagg	ggggtttact	21600
atcctgatga	aattttttag	tcagacactc	tttatttaac	tcaggattta	tttcttccat	21660
tttattctaa	tgttacaggg	tttcatacta	ttaatcatac	gtttggcaac	cctgtcatac	21720
cttttaagga	tggtatttat	tttgctgcca	cagagaaatc	aaatgttgtc	cgtgggtggg	21780
tttttggttc	taccatgaac	aacaagtcac	agtcgggtgat	tattattaac	aattctacta	21840
atgttggttat	acgagcatgt	aactttgaat	tggtgtgacaa	ccctttcttt	gctgtttcta	21900
aacctcatgg	tacacagaca	catactatga	tattcgataa	tgcatttaat	tgacttttcg	21960
agtacataat	tgatgccttt	tcgcttgatg	tttcagaaaa	gtcaggtaat	tttaaacact	22020
tacgagagtt	tgtgtttaaa	aataaagatg	ggtttctcta	tgttttataag	ggctatcaac	22080
ctatagatgt	agttcgtgat	ctaccttctg	gttttaacac	tttgaaacct	atttttaagt	22140
tgctctttgg	tattaacatt	acaaatttta	gagccattct	tacagccttt	tcacctgtct	22200
aagacatttg	gggcacgtca	gctgcagcct	attttggttg	ctattttaag	ccaactacat	22260
ttatgctcaa	gtatgatgaa	aatggtacaa	tcacagatgc	tgttgattgt	tctcaaaatc	22320
cacttgctga	actcaaatgc	tctgttaaga	gctttgagat	tgacaaagga	atttaccaga	22380
cctctaattt	caggggtgtt	ccctcaggag	atgttggtg	attcccta	attacaaact	22440
tgtgtccttt	tggagaggtt	tttaatgcta	ctaaattccc	ttctgtctat	gcatgggaga	22500
gaaaaaaaat	ttctaatttg	gttgctgatt	actctgtgct	ctacaactca	acattttttt	22560
caacctttta	gtgctatggc	gttctgtcca	ctaagttgaa	tgatctttgc	ttctccaatg	22620
tctatgcaga	ttcttttgta	gtcaagggag	atgatgtaag	acaaatagcg	ccaggacaaa	22680
ctgggtgttat	tgctgattat	aattataaat	tgccagatga	tttcatgggt	tgtgtccttg	22740

SEQLIST-20480.TXT

cttgaatac	taggaacatt	gatgctactt	caactggtaa	ttataattat	aaatataggt	22800
atcttagaca	tggcaagctt	aggccctttg	agagagacat	atctaattgtg	cctttctccc	22860
ctgatggcaa	accttgcacc	ccacctgtct	ttaattgtta	ttggccatta	aatgattatg	22920
gtttttacac	cactactggc	attggctacc	aaccttacag	agttgtagta	ccttcttttg	22980
aactttttaa	tgcaccggcc	acggtttgtg	gacccaaatt	atccactgac	cttattaaga	23040
accagtgtgt	caattttaat	tttaattggac	tcactggtag	tgggtgtgta	actccttctt	23100
caaagagatt	tcaaccattt	caacaatttg	gccgtgatgt	ttctgatttc	actgattccg	23160
ttcgagatcc	taaaacatct	gaaatattag	acatttcacc	ttgctctttt	gggggtgtaa	23220
gtgtaattac	acctggaaca	aatgcttcat	ctgaagtgtg	tgttctatat	caagatgtta	23280
actgcactga	tgtttctaca	gcaattcatg	cagatcaact	cacaccagct	tggcgcatat	23340
attctactgg	aaacaatgta	ttccagactc	aagcaggctg	tcttatagga	gctgagcatg	23400
tcgacacttc	ttatgagtg	gacattccta	ttggagctgg	catttgtgct	agttaccata	23460
cagtttcttt	attacgtagt	actagccaaa	aatctattgt	ggcttatact	atgtcttttag	23520
gtgctgtag	ttcaattgct	tactctaata	acacctattg	tatacctact	aacttttcaa	23580
ttagcattac	tacagaagta	atgcctgttt	ctatggctaa	aacctccgta	gattgtaata	23640
tgtacatctg	cggagattct	actgaatgtg	ctaatttgct	tctccaatat	ggtagctttt	23700
gcacacaact	aaatcgtgca	ctctcaggta	ttgctgtgta	acaggatcgc	aacacacgtg	23760
aagtgtctgc	tcaagtcaaa	caaatgtaca	aaaccccaac	tttgaaatat	tttgggtggt	23820
ttaatttttc	acaaatatta	cctgaccctc	taaagccaac	taagaggctt	tttattgagg	23880
acttgctctt	taataagggtg	acactcgtcg	atgctggctt	catgaagcaa	tatggcgaat	23940
gcctaggtga	tattaatgct	agagatctca	tttgtgcgca	gaagtccaat	ggacttacag	24000
tgttggcacc	tctgtctact	gatgatgatg	ttgtgctcta	cactgctgct	ctagttagtg	24060
gtactgccac	tgctggatgg	acatttggtg	ctggcgctgc	tcttcaaata	ccttttgcta	24120
tgcaaatggc	atataaggttc	aatggcattg	gagttaccca	aaatgttctc	tatgagaacc	24180
aaaaacaaat	cgccaaccaa	tttaacaagg	cgattagtca	aattcaagaa	tcacttacaa	24240
caacatccac	tgcatggggc	aagctgcaag	acgttgctaa	ccagaatgct	caagcattaa	24300
acacacttgt	taaacaactt	agctctaatt	ttgggtgcaat	ttcaagtgtg	ctaaatgata	24360
tcctttcgcg	acttgataaaa	gtcgaggcgg	aggtacaaat	tgacagggtta	attacaggca	24420
gacttcaaag	ccttcaaacc	tatgtaaac	aacaactaat	cagggtctgt	gaaatcaggg	24480
ctttgccaag	tcttgcctgt	actaaaatgt	ctgagtggtg	tcttggacaa	tcaaaaagag	24540
ttgacttttg	tggaaagggc	taccacctta	tgctcttccc	acaagcagcc	ccgcatgggtg	24600
ttgtcttctt	acatgtcacg	tatgtgccat	cccaggagag	gaacttcacc	acagcgccag	24660
caatttgtca	tgaaggcaaa	gcatacttcc	ctcgtgaagg	tgtttttgtg	tttaattggca	24720
cttcttgggt	ttttacacag	aggaacttct	aataattact	ataataattact	acagacaata	24780
catttgtctc	aggaaattgt	gatgtcgtta	ttggcatcat	taacaacaca	gtttatgatc	24840
ctctgcaacc	tgagcttgac	tcattcaaag	aagagctgga	caagtacttc	aaaaatcata	24900
catcaccaga	tggtgatttt	ggcgacattt	caggcaattaa	cgcttctgtc	gtcaacattc	24960
aaaaagaaat	tgaccgcctc	aatgaggtcg	ctaaaatttt	aaatgaatca	ctcattgacc	25020
ttcaagaatt	gggaaaatat	gagcaatata	ttaaatggcc	ttgggtatgtt	tggctcggct	25080
tcattgctgg	actaattgcc	atcgatcatg	ttacaatctt	gctttgttgc	atgactagtt	25140
gttgagcttg	cctcaagggg	gcatgctctt	gtggttcttg	ctgcaagttt	gatgaggatg	25200
actctgagcc	agttctcaag	ggtgtcaaat	tactttacac	ataaacgaac	ttatggattt	25260
gtttatgaga	ttttttactc	ttggatcaat	tactgcacag	ccagtaaaaa	ttgacaatgc	25320
ttctcctgca	agtactgttc	atgttacagc	aacgataccg	ctacaagcct	cactcccttt	25380
cggatggctt	gttattggcg	ttgcatttct	tgctgttttt	cagagcgcta	ccaaaataat	25440
tgcgctcaat	aaaagatggc	agctagccct	ttataagggc	ttccagttca	tttgcaattt	25500
actgctgcta	tttgttacca	tctattcaca	tcttttgctt	gtcgtgtag	gtatggaggc	25560
gcaatttttg	tacctctatg	ccttgatata	ttttctacaa	tgcatcaacg	catgtagaat	25620
tattatgaga	tgttggcttt	gttggaggtg	caaattccaag	aaccttattc	tttatgatgc	25680
caactacttt	gtttgctggc	acacacataa	ctatgactac	tgtataccat	ataacagtgt	25740
cacagataca	attgtcggtta	ctgaagggtga	cggcatttca	acaccaaaaac	tcaaagaaga	25800
ctaccaaat	ggtgggttatt	ctgaggatag	gcactcaggt	gttaaagact	atgtcgttgt	25860
acatggctat	ttaccggaag	tttactacca	gcttgagtct	acacaaaata	ctacagacac	25920
tggtattgaa	aatgctacat	tcttcatctt	taacaagctt	gttaaagacc	caccgaatgt	25980
gcaaatacac	acaatcgacg	gctcttcagg	agttgctaata	ccagcaatgg	atccaattta	26040
tgatgagccg	acgacgacta	ctagcgtgcc	tttgtaagca	caagaaagtg	agtacgaact	26100
tatgtactca	ttcgtttcgg	aagaaacagg	tacgttaata	gttaatagcg	tacttctttt	26160
tcttgctttc	gtgggtattct	tgctagtcac	actagccatc	cttactgctc	ttcgattgtg	26220
tgcgtagctg	tgcaatattg	ttaacgtgag	tttagtaaaa	ccaacgggtt	acgtctactc	26280
gcgtgttaaa	aatctgaact	cttctgaagg	agttcctgat	cttctgggtc	aaacgaacta	26340
actattatta	ttattctgtt	tggaaacttta	acatttgctta	tcatggcaga	caacgggtact	26400
attaccgttg	aggagcttaa	acaactcctg	gaacaattgga	acctagtaat	aggtttccta	26460
ttcctagcct	ggattatggt	actacaattt	gcctatttcta	atcggaacag	gtttttgtac	26520

SEQLIST-20480.TXT

ataataaagc	ttgttttcct	ctggctcttg	tggccagtaa	cacttgcttg	ttttgtgctt	26580
gctgttgtct	acagaattaa	ttgggtgact	ggcgggattg	cgattgcaat	ggcttgattt	26640
gtaggcttga	tgtggcttag	ctacttcggt	gcttccttca	ggctgtttgc	tcgtacccgc	26700
tcaatgtggt	cattcaaccc	agaaacaaac	attcttctca	atgtgcctct	ccgggggaca	26760
attgtgacca	gaccgctcat	ggaaagtga	cttgtcattg	gtgctgtgat	cattcgtggt	26820
cacttgcgaa	tggccggaca	ctccctaggg	cgctgtgaca	ttaaggacct	gccaaaagag	26880
atcactgtgg	ctacatcacg	aacgctttct	tattacaaat	taggagcgtc	gcagcgtgta	26940
ggcactgatt	cagggttttg	tgcatacaac	cgctaccgta	ttggaaacta	taaattaaat	27000
acagaccacg	ccggtagcaa	cgacaatatt	gctttgctag	tacagtaagt	gacaacagat	27060
gtttcatctt	gttgacttcc	aggttacaat	agcagagata	ttgattatca	ttatgaggac	27120
tttcaggatt	gctatttgga	atcttgacgt	tataataagt	tcaatagtga	gacaattatt	27180
taagcctcta	actaagaaga	attattcgga	gttagatgat	gaagaacctt	tggagttaga	27240
ttatccataa	aaagaacatg	aaaattattc	tcttcctgac	attgattgta	tttacatctt	27300
gcgagctata	tcactatcag	gagtggttta	gaggtacgac	tgtactacta	aaagaacctt	27360
gcccatacagg	aacatacagag	ggcaattcac	catttcaccc	tcttgctgac	aataaatttg	27420
cactaacttg	cactagcaca	cactttgctt	ttgcttgctg	tgacggtact	cgacataacct	27480
atcagctgcg	ctgaagctca	gtttcaccac	aactttctat	cagacaagag	gaggttcaac	27540
aagagctcta	ctcgccactt	tttctcattg	ttgctgctct	agtattttta	atactttgct	27600
tcaccattaa	gagaaagaca	gaatgaatga	gctcacttta	attgacttct	atttgtgctt	27660
tttagccttt	ctgctattcc	ttgttttaat	aatgcttatt	atattttggg	tttcactcga	27720
aatcaggatt	acctaattgt	ctgtaccacg	agtctaaacg	aacatgaaac	ttctcattgt	27780
tttgactttg	atttctctat	gcagttgcat	atgcactgta	gtacagcgct	gtgcatctaa	27840
taaacctcat	gtgcttgaag	atccttgtaa	ggtacaacac	taggggtaat	acttatagca	27900
ctgcttggtt	ttgtgctcta	ggaaagggtt	taccttttca	tagatggcac	actatgggtc	27960
aaacatggac	acctaattgt	actatcaact	agctgggtgc	agctgggtgc	gcgcttatag	28020
ctaggtgttg	gtaccttcat	gaaggtcacc	aaactgctgc	atttagagac	gtacttggtg	28080
ttttaataaa	acgaacaaat	taaaatgtct	gataatggac	cccaatcaaa	ccaacgtagt	28140
gccccccgca	ttacatttgg	tggaccacac	gattcaactg	acaataacca	gaatggagga	28200
cgcaatgggg	caaggccaaa	acagcgccga	ccccaaaggt	tacccaataa	tattgcgtct	28260
tggttcacag	ctctcactca	gcatggcaag	gaggaactta	gattccctcg	aggccagggc	28320
gttccaatca	acaccaatag	tgggtccagat	gaccaaattg	gctactaccg	aagagctacc	28380
gcagcaggtt	gtggtggtga	cggcaaaatg	aaagagctca	gccccagatg	gtacttctat	28440
tacctaggaa	ctggccattg	agcttcactt	ccctcaggcg	ctaacaaga	aggcatcgta	28500
tgggttgcaa	ctgaggggag	cttgaataca	cccaaaggac	acattggcac	ccgcaatcct	28560
aataacaatg	ctgccaccgt	gctacaactt	cctcaaggaa	caacattgcc	aaaaggcttc	28620
tacgcagagg	gaagcagagg	cggcagtcaa	gcctcttctc	gctcctcatc	acgtagtcgc	28680
ggtaattcaa	gaaattcaac	tcctggcagc	agtaggggaa	attctcctgc	tcgaatggct	28740
agcggagggt	gtgaaactgc	cctcgcgcta	ttgctgctag	acagattgaa	ccagcttgag	28800
agcaaagtgt	ctggttaaagg	ccaacaacaa	caaggccaaa	ctgtcactaa	gaaatctgct	28860
gctgaggcat	ctaaaaagcc	tcgccccaaa	cgtactgcca	caaaacagta	caacgtcact	28920
caagcatttg	ggagacgtgg	tccagaacaa	acccaaggaa	atttcgggga	ccaagacctt	28980
atcagacaag	gaactgattg	caaacattgg	ccgcaaatg	cacaatttgc	tccaagtgcc	29040
tctgcattct	ttggaatgtc	acgcattggc	atggaagtca	caccttcggg	aacatggctg	29100
acttatcatg	gagccattaa	attggatgac	aaagatccac	aattcaaaga	caacgtcata	29160
ctgctgaaca	agcacattga	cgcatacaaa	acattcccac	caacagagcc	taaaaaggac	29220
aaaaagaaaa	agactgatga	agctcagcct	ttgccgcaga	gacaaaagaa	gcagcccact	29280
gtgactcttc	ttcctgcggc	tgacatggat	gatttctcca	gacaacttca	aaattccatg	29340
agtggagctt	ctgctgattc	aactcaggca	taaacactca	tgatgaccac	acaaggcaga	29400
tgggctatgt	aaacgttttc	gcaattccgt	ttacgatata	tagtctactc	ttgtgcagaa	29460
tgaattctcg	taactaaaca	gcacaagtag	gtttagttaa	ctttaatctc	acatagcaat	29520
ctttaatcaa	tgtgtaacat	tagggaggac	ttgaaagagc	caccacattt	tcatcgaggc	29580
cacgctgagt	acgatcgagg	gtacagtga	taatgctagg	gagagctgcc	tatatggaag	29640
agccctaatt	tgtaaaatta	attttagtag	tgctatcccc	atgtgatttt	aatagcttct	29700
taggagaatg	acaaaaaaaa	aaaaa				29725

<210> 11641  
 <211> 39  
 <212> PRT  
 <213> SARS coronavirus

<400> 11641  
 Met Lys Leu Leu Ile Val Leu Thr Cys Ile Ser Leu Cys Ser Cys Ile  
 1 5 10 15

SEQLIST-20480.TXT

Cys	Thr	Val	Val	Gln	Arg	Cys	Ala	Ser	Asn	Lys	Pro	His	Val	Leu	Glu
			20					25					30		
Asp	Pro	Cys	Lys	Val	Gln	His									
		35													